# S-32® Sanctuary Series™

## Mixing Console Operations Guide

ENGLISH

Intended to alert the user to the presence of uninsulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**CAUTION:** Risk of electrical shock — DO NOT OPEN!

**CAUTION:** To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

**WARNING:** To prevent electrical shock or fire hazard, this apparatus should not be exposed to rain or moisture, and objects filled with liquids, such as vases, should not be placed on this apparatus. Before using this apparatus, read the operating guide for further warnings.

**Protective earthing terminal.** The apparatus should be connected to a mains socket outlet with a protective earthing connection.

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SPANISH

Este símbolo tiene el propósito, de alertar al usuario de la presencia de “(voltaje) peligroso” sin aislamiento dentro de la caja del producto y que puede tener una magnitud suficiente como para constituir riesgo de descarga eléctrica.

Este símbolo tiene el propósito de alertar al usario de la presencia de instruccones importantes sobre la operación y mantenimiento en la información que viene con el producto.

**PRECAUCION:** Riesgo de descarga eléctrica ¡NO ABRIR!

**PRECAUCION:** Para disminuír el riesgo de descarga eléctrica, no abra la cubierta. No hay piezas útiles dentro. Deje todo mantenimiento en manos del personal técnico cualificado.

**ADVERTENCIA:** Para prevenir choque electrico o riesgo de incendios, este aparato no se debe exponer a la lluvia o a la humedad. Los objetos llenos de liquidos, como los floreros, no se deben colocar encima de este aparato. Antes de usar este aparato, lea la guia de funcionamiento para otras advertencias.

**Terminal de puesta a tierra de protección**. El aparato debe estar conectado a una toma de corriente con conexión a tierra de protección.

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FRENCH

Ce symbole est utilisé dans ce manuel pour indiquer à l’utilisateur la présence d’une tension dangereuse pouvant être d’amplitude suffisante pour constituer un risque de choc électrique.

Ce symbole est utilisé dans ce manuel pour indiquer à l’utilisateur qu’il ou qu’elle trouvera d’importantes instructions concernant l’utilisation et l’entretien de l’appareil dans le paragraphe signalé.

**ATTENTION:** Risques de choc électrique — NE PAS OUVRIR!

**ATTENTION:** Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l’intérieur aucune pièce pouvant être reparée par l’utilisateur. Confiez l’entretien et la réparation de l’appareil à un réparateur Peavey agréé.

**AVIS**: Dans le but de reduire les risques d’incendie ou de decharge electrique, cet appareil ne doit pas etre expose a la pluie ou a l’humidite et aucun objet rempli de liquide, tel qu’un vase, ne doit etre pose sur celui-ci. Avant d’utiliser de cet appareil, lisez attentivement le guide fonctionnant pour avertissements supplémentaires.

**Borne de terre de protection.** L'appareil doit être connecté à une prise secteur avec une connexion à la terre.

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GERMAN

Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.

Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

**VORSICHT:** Risiko — Elektrischer Schlag! Nicht öffnen!

**VORSICHT:** Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung enfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

**WARNUNG:** Um elektrischen Schlag oder Brandgefahr zu verhindern, sollte dieser Apparat nicht Regen oder Feuchtigkeit ausgesetzt werden und Gegenstände mit Flüssigkeiten gefuellt, wie Vasen, nicht auf diesen Apparat gesetzt werden. Bevor dieser Apparat verwendet wird, lesen Sie bitte den Funktionsführer für weitere Warnungen.

**Schutzerdung Terminal.** Das Gerät nur an Steckdose mit Schutzleiter angeschlossen werden.

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FINNISH

Tarkoitettu kiinnittämään käyttäjän huomio sellaiseen eristämättömään vaaralliseen jännitteeseen tuotteen kotelossa, joka saattaa olla riittävän suuri aiheuttaakseen sähköiskuvaaran.

Tarkoitettu kiinnittämään käyttäjän huomio tärkeisiin käyttö- ja huolto-ohjeisiin tuotteen mukana seuraavassa ohjeistuksessa.

**VAROITUS:** Sähköiskun vaara — ÄLÄ AVAA!

**VAROITUS:** Sähköiskuvaaran vuoksi älä poista kantta. Ei sisällä käyttäjän huollettavissa olevia osia. Huoltaminen tulee jättää pätevän huoltohenkilöstön tehtäväksi.

**VAARA:** Sähköiskun tai tulipalon vaaran estämiseksi tätä laitetta ei saa altistaa sateelle tai kosteudelle, eikä sen päälle saa asettaa nesteellä täytettyjä esineitä, kuten maljakoita. Ennen laitteen käyttöä lue muut varoitukset käyttöohjeesta.

**Suojamaadoitus terminaali.** Laite tulee kytkeä sähköverkkoon suojajohtimella.

Laite on liitettävä suojamaadoituskoskettimilla varustettuun pistorasiaan.

SWEDISH

Är avsedd att varna användaren för förekomsten av oisolerad ”farlig spänning” inom produktens hölje som kan vara av tillräcklig nivå för att personer ska riskera elektrisk stöt.

Är avsedd att uppmärksamma användaren på förekomsten av viktiga handhavande- och underhållsinstruktioner (service) i den litteratur som medföljer produkten.

**OBSERVERA:** Risk för elektrisk stöt – ÖPPNA INTE!

**OBSERVERA:** För att minska risken för elektrisk stöt, avlägsna inte höljet. Inga delar inuti kan underhållas av användaren. Låt kvalificerad servicepersonal sköta servicen.

**VARNING:** För att förebygga elektrisk stöt eller brandrisk bör apparaten inte utsättas för regn eller fukt, och föremål fyllda med vätskor, såsom vaser, bör inte placeras på denna apparat. Läs bruksanvisningen för ytterligare varningar innan denna apparat används.

**Skyddsjordning terminalen.** Apparaten skall anslutas till ett uttag med skyddande jordanslutning.

Apparaten skall anslutas till jordat uttag.

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NORWEGIAN

Har til hensikt å advare brukeren om tilstedeværelse av uisolert “farlig spenning” inne i produktet, som kan ha tilstrekkelig styrke til å medføre risiko for elektrisk støt for en person.

Har til hensikt å informere brukeren om tilstedeværelsen av viktige bruks- og vedlikeholds (service)-instruksjoner i litteraturen som følger med produktet.

**ADVARSEL:** Risiko for elektrisk støt — MÅ IKKE ÅPNES!

**ADVARSEL:** For å redusere risikoen for elektrisk støt må ikke dekslet fjernes. Det finnes ingen deler på innsiden som brukeren kan justere. Overlat servicearbeidet til kvalifisert servicepersonell.

**ADVARSEL:** For å hindre elektrisk støt eller brannfare må ikke dette apparatet utsettes for regn eller fuktighet, og gjenstander fylt med væske, som en vase, må ikke settes på apparatet. Før du tar apparatet i bruk må du lese bruksanvisningen for ytterligere advarsler.

**Beskyttende jordingsterminal.** Apparatet må kobles til en elektrisk kontakt med et støpsel som har skjermet jordkontakt.

Apparatet må tilkoples jordet stikkontakt.

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DUTCH

Bedoeld om de gebruiker te attenderen op de aanwezigheid van ongeïsoleerde “gevaarlijke spanning” binnen de behuizing van het product dat van voldoende omvang kan zijn om een risico op elektrische schokken te vormen.

Bedoeld om de gebruiker te attenderen op de aanwezigheid van belangrijke gebruiks- en onderhoudsinstructies in de literatuur bij het product.

**OPGELET:** Risico op een elektrische schok - NIET OPENEN

**OPGELET:** Om het risico op elektrische schokken te verkleinen, verwijder niet het deksel. Er zijn geen voor de gebruiker bruikbare onderdelen binnenin aanwezig. Verwijs onderhoud door naar gekwalificeerd onderhoudspersoneel.

**WAARSCHUWING:** Om elektrische schokken of brandgevaar te voorkomen, stel dit apparaat mag niet bloot aan regen of vocht ‘ en voorwerpen gevuld met vloeistoffen, zoals vazen mogen niet op dit apparaat worden geplaatst. Lees de gebruiksaanwijzingen voor nadere waarschuwingen voordat u dit apparaat gebruikt.

**Beschermende aardklem.** Het apparaat dient te worden aangesloten op een stopcontact met een beschermend aardcontact.

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**ITALIAN**

Atto ad avvisare l’utente in merito alla presenza “voltaggio pericoloso” non isolato all’interno della scatola del prodotto che potrebbe avere una magnitudo sufficiente a costituire un rischio di scossa elettrica per le persone.

Atto ad avvisare l’utente in merito alla presenza di istruzioni operative e di assistenza importanti (manutenzione) nel libretto che accompagna il prodotto.

**ATTENZIONE:** Rischio di scossa elettrica — NON APRIRE!

**ATTENZIONE:** per ridurre il rischio di scossa elettrica, non rimuovere il coperchio. Non vi sono parti utili all’utente all’interno. Fare riferimento a personale addetto qualificato.

**AVVERTENZA:** per prevenire il rischio di scossa o il rischio di incendio, questo apparecchio non dovrebbe essere esposto a pioggia o umidità, e oggetti riempiti con liquidi, come vasi, non dovrebbero essere posizionati sopra questo apparecchio. Prima di usare questo apparecchio, leggere la guida operativa per ulteriori informazioni.

**Morsetto di terra di protezione**. L'apparecchio deve essere collegato a una presa di corrente di rete con un conduttore di terra.

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**PORTUGUESE**

Destinado a alertar o usuário da presença de “voltagem perigosa” não isolada dentro do receptáculo do produto que pode ser de magnitude suficiente para constituir um risco de choque elétrico a pessoas.

Destinado a alertar o usuário da presença de instruções importantes de operação e manutenção (conserto) na literatura que acompanha o produto.

**CUIDADO:** Risco de choque elétrico — NÃO ABRA!

**CUIDADO:** Para evitar o risco de choque elétrico, não remova a cobertura. Contém peças não reparáveis pelo usuário. Entregue todos os consertos apenas a pessoal qualificado.

**ADVERTÊNCIA:** Para evitar choques elétricos ou perigo de incêndio, este aparelho não deve ser exposto à chuva ou umidade e objetos cheios de líquidos, tais como vasos, não devem ser colocados sobre ele. Antes de usar este aparelho, leia o guia de operação para mais advertências.

Terminal de aterramento de proteção. O aparelho deve ser ligado a uma tomada eléctrica com ligação à terra de proteção.

JAPANESE

人体への電気ショックの危険が考えられる製品筐体内の非絶縁「危険電圧」の存在をユーザーに警告す るものです。

製品に付属している説明書に記載の重要な操作およびメンテナンス(サービス)要領の存在をユーザーに警告するものです。

注意: 電気ショックの危険あり — 開けないでください!

注意: 電気ショックの危険を低減するため、カバーを外さないでください。内部部品はユーザーによるサービス不可。資格のあるサービス要因のサービスを要請してください。

警告:電気ショックまたは火災の危険を避けるため、この装置を雨または湿気にさらしてはなりません。ま た、過敏など液体を含む物をこの装置上に置いてはなりません。この装置を使用する前に、警告事項につ いて操作ガイドをお読みください。

保護接地端子。装置は保護接地に接続している電源コンセントに接続する必要があります

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CHINESE

三角形内带有箭头闪电状符号意在敬告用户，表明产品内部有非绝缘的“危险电压”存在，而且具有足以致人触电的危险。

三角形内的感叹号意在警告用户，表明与机器的操作和维护（维修）有关的重要说明。

**警告**：触电危险—勿打开!
**警告**：为了避免触电危险，请勿打开机壳。机内无用户可以维修的部件。需要维修时，请与指定的专业维修人员联系。

**警告：为了避免触电或火灾危险，请勿将本机置于雨中或潮湿之处。请勿将装满液体的物体，例如花瓶等置于本机之上。使用本机之前，请仔细阅读本操作说明书中的安全说明。**

保 保护接地端子。设备应该连接到带有保护接地连接的电源插座。

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KOREAN

제품의 케이스 내에 감전을 유발할 수 있는 절연되지 않은 " 위험한 전압 " 이 존재함을 사용자에게 알 립니다 . 제품과 함께 제공되는 인쇄물에 중요

한 작동 및 유지 보수 ( 서비스 ) 지침이 있음을 사용자에게 알립 니다 .

**주의 :** 감전 위험 — 열지 마십시오 !

**주의 :** 감전 위험을 낮추기 위해 덮개를 제거하지 마십시오 . 장치 내부에는 사용자가 직접 수리할 수 있는 부품이 없습니다 . 자격을 갖춘 서비스 요원에게 서비스를 의뢰하십시오 .

**경고 : 감전 또는 화재 위험을 예방하기 위해 본 기기를 비 또는 습기에 노출하거나 꽃병과 같이 액체 가 들어 있는 물체를 본 기기 위에 올려놓지 마십시오 . 본 기기를 사용하기 전에 추가 경고 사항에 대 한 작동 설명서를 읽어 주십시오 .**

보호 접지 단자.장치는 보호 접지 연결 전원 소켓 콘센트에 연결되어야

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ARABIC

تشير لتنبيه المستخدم لوجود "تيارات كهربية خطرة" غير معزولة داخل محتويات المنتج والتي قد تكون كافية لتتسبب في تعرض الأشخاص لصدمة كهربية.

تشير لتنبيه المستخدم لوجود تعليمات تشغيل وصيانة (صيانة) مهمة داخل الكتيب المرفق مع هذا المنتج.

**تحذير**: خطر التعرض لصدمة كهربية - لا تفتح!

**تحذير**: لتقليل مخاطر التعرض لصدمة كهربية، لا تقم بإزالة الغطاء. لا توجد أجزاء قابلة للاستعمال للمستخدم بالداخل. ارجع إلى الصيانة للحصول على خدمة من الموظفين المؤهلين.

**تحذير**: لمنع حدوث صدمة كهربية أو مخاطر حريق، لا يجب تعريض هذا الجهاز للمطر أو الرطوبة، ولا يجب وضع الأشياء المملوءة بالسوائل، مثل الزهريات، فوقه. قبل استخدام هذا الجهاز، اقرأ دليل التشغيل لمزيد من التحذيرات.

.يجب أن تكون متصلا الجهاز إلى منفذ أم ذخ التيار الكهربائي مع اتصال التأريض واقية. حط أرضية الوقائية

# IMPORTANT SAFETY INSTRUCTIONS



**WARNING:** When using electrical products, basic cautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any of the ventilation openings. Install in accordance with manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding plug. The wide blade or third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched, particularly at plugs, convenience receptacles, and the point they exit from the apparatus.
11. Only use attachments/accessories provided by the manufacturer.
12. Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15. Never break off the ground pin. Write for our free booklet "Shock Hazard and Grounding." Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
16. If this product is to be mounted in an equipment rack, rear support should be provided.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows: a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow. b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black. c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. This electrical apparatus should not be exposed to dripping or splashing and care should be taken not to place objects containing liquids, such as vases, upon the apparatus.
19. The on/off switch in this unit does not break both sides of the primary mains. Hazardous energy can be present inside the chassis when the on/off switch is in the off position. The mains plug or appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
20. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise-induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures:

| Duration Per Day In Hours | Sound Level dBA, Slow Response |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 1⁄2 | 102 |
| 1 | 105 |
| 1⁄2 | 110 |
| 1⁄4 or less | 115 |

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss. Earplugs or protectors to the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss, if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

## SAVE THESE INSTRUCTIONS!

# INSTRUCCIONES IMPORTANTES PARA SU SEGURIDAD

**CUIDADO:** Cuando use productos electrónicos, debe tomar precauciones básicas, incluyendo las siguientes:

1. Lea estas instrucciones.
2. Guarde estas instrucciones.
3. Haga caso de todos los consejos.
4. Siga todas las instrucciones.
5. No usar este aparato cerca del agua.
6. Limpiar solamente con una tela seca.
7. No bloquear ninguna de las salidas de ventilación. Instalar de acuerdo a las instrucciones del fabricante.
8. No instalar cerca de ninguna fuente de calor como radiadores, estufas, hornos u otros aparatos (incluyendo amplificadores) que produzcan calor.
9. No retire la patilla protectora del enchufe polarizado o de tipo “a Tierra”. Un enchufe polarizado tiene dos puntas, una de ellas más ancha que la otra. Un enchufe de tipo “a Tierra” tiene dos puntas y una tercera “a Tierra”. La punta ancha (la tercera ) se proporciona para su seguridad. Si el enchufe proporcionado no encaja en su enchufe de red, consulte a un electricista para que reemplaze su enchufe obsoleto.
10. Proteja el cable de alimentación para que no sea pisado o pinchado, particularmente en los enchufes, huecos, y los puntos que salen del aparato.
11. Usar solamente añadidos/accesorios proporcionados por el fabricante.
12. Usar solamente un carro, pie, trípode, o soporte especificado por el fabricante, o vendido junto al aparato. Cuando se use un carro, tenga cuidado al mover el conjunto carro/aparato para evitar que se dañe en un vuelco. No suspenda esta caja de ninguna manera.
13. Desenchufe este aparato durante tormentas o cuando no sea usado durante largos periodos de tiempo.
14. Para cualquier reparación, acuda a personal de servicio cualificado. Se requieren reparaciones cuando el aparato ha sido dañado de alguna manera, como cuando el cable de alimentación o el enchufe se han dañado, algún líquido ha sido derramado o algún objeto ha caído dentro del aparato, el aparato ha sido expuesto a la lluvia o la humedad, no funciona de manera normal, o ha sufrido una caída.
15. Nunca retire la patilla de Tierra.Escríbanos para obtener nuestro folleto gratuito “Shock Hazard and Grounding” (“Peligro de Electrocución y Toma a Tierra”). Conecte el aparato sólo a una fuente de alimentación del tipo marcado al lado del cable de alimentación.
16. Si este producto va a ser enracado con más equipo, use algún tipo de apoyo trasero.
17. Nota para el Reino Unido solamente: Si los colores de los cables en el enchufe principal de esta unidad no corresponden con los terminales en su enchufe, proceda de la siguiente manera: a) El cable de color verde y amarillo debe ser conectado al terminal que está marcado con la letra E, el símbolo de Tierra (earth), coloreado en verde o en verde y amarillo. b) El cable coloreado en azul debe ser conectado al terminal que está marcado con la letra N o el color negro. c) El cable coloreado en marrón debe ser conectado al terminal que está marcado con la letra L o el color rojo.
18. Este aparato eléctrico no debe ser sometido a ningún tipo de goteo o salpicadura y se debe tener cuidado para no poner objetos que contengan líquidos, como vasos, sobre el aparato.
19. El interruptor de en/lejos en esta unidad no rompe ambos lados de la red primaria. La energía peligrosa puede ser presente dentro del chasis cuando el interruptor de en/lejos está en el de la posición. El tapón de la red o el acoplador del aparato son utilizados como el desconecta dispositivo, el desconecta dispositivo se quedará fácilmente operable.
20. La exposición a altos niveles de ruido puede causar una pérdida permanente en la audición. La susceptibilidad a la pérdida de audición provocada por el ruido varía según la persona, pero casi todo el mundo perderá algo de audición si se expone a un nivel de ruido suficientemante intenso durante un tiempo determinado. El Departamento para la Salud y para la Seguridad del Gobierno de los Estados Unidos (OSHA) ha especificado las siguientes exposiciones al ruido permisibles:

| Duración por Día en Horas | Nivel de Sonido dBA, Respuesta Lenta |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 ½ | 102 |
| 1 | 105 |
| ½ | 110 |
| ¼ o menos | 115 |

De acuerdo al OSHA, cualquier exposición que exceda los límites arriba indicados puede producir algún tipo de pérdida en la audición. Protectores para los canales auditivos o tapones para los oídos deben ser usados cuando se opere con este sistema de sonido para prevenir una pérdida permanente en la audición, si la exposición excede los límites indicados más arriba. Para protegerse de una exposición a altos niveles de sonido potencialmente peligrosa, se recomienda que todas las personas expuestas a equipamiento capaz de producir altos niveles de presión sonora, tales como este sistema de amplificación, se encuentren protegidas por protectores auditivos mientras esta unidad esté operando.

## GUARDE ESTAS INSTRUCCIONES!

# INSTRUCTIONS IMPORTANTES DE SECURITE

**ATTENTION:** L'utilisation de tout appareil électrique doit être soumise aux precautions d'usage incluant:

CE

1. Lire ces instructions.
2. Gardez ce manuel pour de futures références.
3. Prétez attention aux messages de précautions de ce manuel.
4. Suivez ces instructions.
5. N'utilisez pas cette unité proche de plans d'eau.
6. N'utilisez qu'un tissu sec pour le nettoyage de votre unité.
7. N'obstruez pas les systèmes de refroidissement de votre unité et installez votre unité en fonction des instructions de ce manuel.
8. Ne positionnez pas votre unité à proximité de toute source de chaleur.
9. Connectez toujours votre unité sur une alimentation munie de prise de terre utilisant le cordon d'alimentation fourni.
10. Protégez les connecteurs de votre unité et positionnez les cablages pour éviter toutes déconnexions accidentelles.
11. N'utilisez que des fixations approuvées par le fabriquant.
12. Lors de l'utilsation sur pied ou pole de support, assurez dans le cas de déplacement de l'ensemble enceinte/support de prévenir tout basculement intempestif de celui-ci.
13. Il est conseillé de déconnecter du secteur votre unité en cas d'orage ou de durée prolongée sans utilisation.
14. Seul un technicien agréé par le fabriquant est à même de réparer/contrôler votre unité. Celle-ci doit être contrôlée si elle a subit des dommages de manipulation, d'utilisation ou de stockage (humidité,…).
15. Ne déconnectez jamais la prise de terre de votre unité.
16. Si votre unité est destinée a etre montée en rack, des supports arriere doivent etre utilises.
17. Note pour les Royaumes-Unis: Si les couleurs de connecteurs du cable d'alimentation ne correspond pas au guide de la prise secteur, procédez comme suit: a) Le connecteur vert et jaune doit être connectrer au terminal noté E, indiquant la prise de terre ou correspondant aux couleurs verte ou verte et jaune du guide. b) Le connecteur Bleu doit être connectrer au terminal noté N, correspondnat à la couleur noire du guide. c) Le connecteur marron doit être connectrer au terminal noté L, correspondant à la couleur rouge du guide.
18. Cet équipement électrique ne doit en aucun cas être en contact avec un quelconque liquide et aucun objet contenant un liquide, vase ou autre ne devrait être posé sur celui-ci. 1
9. L'interrupter (on-off) dans cette unité ne casse pas les deux côtés du primaire principal. L'énergie hasardeuse peut être preésente dans châssis quand l'interrupter (on-off) est dans le de la position. Le bouchon principal ou atelage d'appareil est utilisé comme le débrancher l'appareil restera facilement opérable.
20. Une exposition à de hauts niveaux sonores peut conduire à des dommages de l'écoute irréversibles. La susceptibilité au bruit varie considérablement d'un individu à l'autre, mais une large majorité de la population expériencera une perte de l'écoute après une exposition à une forte puissance sonore pour une durée prolongée. L'organisme de la santé américaine (OSHA) a produit le guide ci-dessous en rapport à la perte occasionnée:

| Durée par Jour (heures) | Niveau sonore moyen (dBA) |
|---|---|
| **8** | **90** |
| **6** | **92** |
| **4** | **95** |
| **3** | **97** |
| **2** | **100** |
| **1 1⁄2** | **102** |
| **1** | **105** |
| **1⁄2** | **110** |
| **1⁄4 ou inférieur** | **115** |

D'après les études menées par le OSHA, toute exposition au delà des limites décrites ce-dessus entrainera des pertes de l'écoute chez la plupart des sujets. Le port de système de protection (casque, oreilette de filtrage,…) doit être observé lors de l'opération cette unité ou des dommages irréversibles peuvent être occasionnés. Le port de ces systèmes doit être observé par toutes personnes susceptibles d'être exposées à des conditions au delà des limites décrites ci-dessus.

## GARDEZ CES INSTRUCTIONS!

# WICHTIGE SICHERHEITSHINWEISE

**SICHERHEITSHINWEISEACHTUNG:** Beim Einsatz von Elektrogeräten müssen u.a. grundlegende Vorsichtsmaßnahmen befolgt werden:

1. Lesen Sie sich diese Anweisungen durch.
2. Bewahren Sie diese Anweisungen auf.
3. Beachten Sie alle Warnungen.
4. Befolgen Sie alle Anweisungen.
5. Setzen Sie dieses Gerät nicht in der Nähe von Wasser ein.
6. Reinigen Sie es nur mit einem trockenen Tuch.
7. Blockieren Sie keine der Lüftungsöffnungen. Führen Sie die Installation gemäß den Anweisungen des Herstellers durch.
8. Installieren Sie das Gerät nicht neben Wärmequellen wie Heizungen, Heizgeräten, Öfen oder anderen Geräten (auch Verstärkern), die Wärme erzeugen.
9. Beeinträchtigen Sie nicht die Sicherheitswirkung des gepolten Steckers bzw. des Erdungssteckers. Ein gepolter Stecker weist zwei Stifte auf, von denen einer breiter ist als der andere. Ein Erdungsstecker weist zwei Stifte und einen dritten Erdungsstift auf. Der breite Stift bzw. der dritte Stift dient Ihrer Sicherheit. Sollte der beiliegende Stecker nicht in Ihre Steckdose passen, wenden Sie sich bitte an einen Elektriker, um die ungeeignete Steckdose austauschen zu lassen.
10. Schützen Sie das Netzkabel, sodass niemand darauf tritt oder es geknickt wird, insbesondere an Steckern oder Buchsen und ihren Austrittsstellen aus dem Gerät.
11. Verwenden Sie nur die vom Hersteller erhältlichen Zubehörgeräte oder Zubehörteile.
12. Verwenden Sie nur einen Wagen, Stativ, Dreifuß, Träger oder Tisch, der den Angaben des Herstellers entspricht oder zusammen mit dem Gerät verkauft wurde. Wird ein Wagen verwendet, bewegen Sie den Wagen mit dem darauf befindlichen Gerät besonders vorsichtig, damit er nicht umkippt und möglicherweise jemand verletzt wird.
13. Trennen Sie das Gerät während eines Gewitters oder während längerer Zeiträume, in denen es nicht benutzt wird, von der Stromversorgung.
14. Lassen Sie sämtliche Wartungsarbeiten von qualifizierten Kundendiensttechnikern durchführen. Eine Wartung ist erforderlich, wenn das Gerät in irgendeiner Art beschädigt wurde, etwa wenn das Netzkabel oder der Netzstecker beschädigt wurden, Flüssigkeit oder Gegenstände in das Gerät gelangt sind, das Gerät Regen oder Feuchtigkeit ausgesetzt wurde, nicht normal arbeitet oder heruntergefallen ist.
15. Der Erdungsstift darf nie entfernt werden. Auf Wunsch senden wir Ihnen gerne unsere kostenlose Broschüre „Shock Hazard and Grounding“ (Gefahr durch elektrischen Schlag und Erdung) zu. Schließen Sie nur an die Stromversorgung der Art an, die am Gerät neben dem Netzkabel angegeben ist.
16. Wenn dieses Produkt in ein Geräte-Rack eingebaut werden soll, muss eine Versorgung über die Rückseite eingerichtet werden.
17. Hinweis – Nur für Großbritannien: Sollte die Farbe der Drähte in der Netzleitung dieses Geräts nicht mit den Klemmen in Ihrem Stecker übereinstimmen, gehen Sie folgendermaßen vor: a) Der grün-gelbe Draht muss an die mit E (Symbol für Erde) markierte bzw. grüne oder grün-gelbe Klemme angeschlossen werden. b) Der blaue Draht muss an die mit N markierte bzw. schwarze Klemme angeschlossen werden. c) Der braune Draht muss an die mit L markierte bzw. rote Klemme angeschlossen werden.
18. Dieses Gerät darf nicht ungeschützt Wassertropfen und Wasserspritzern ausgesetzt werden und es muss darauf geachtet werden, dass keine mit Flüssigkeiten gefüllte Gegenstände, wie z. B. Blumenvasen, auf dem Gerät abgestellt werden.
19. Der Netzschalter in dieser Einheit bricht beide Seiten von den primären Haupleitungen nicht. Gerfährliche Energie kann anwesend innerhalb des Chassis sein, wenn her Netzschalter im ab Poistion ist. Die Hauptleitungen stöpseln zu oder Gerätkupplung ist benutzt, während das Vorrichtung abschaltet, das schaltet Vorrichtung wird bleiben sogleich hantierbar ab.
20. Belastung durch extrem hohe Lärmpegel kann zu dauerhaftem Gehörverlust führen. Die Anfälligkeit für durch Lärm bedingten Gehörverlust ist von Mensch zu Mensch verschieden, das Gehör wird jedoch bei jedem in gewissem Maße geschädigt, der über einen bestimmten Zeitraum ausreichend starkem Lärm ausgesetzt ist. Die US-Arbeitsschutzbehörde (Occupational and Health Administration, OSHA) hat die folgenden zulässigen Pegel für Lärmbelastung festgelegt:

| Dauer pro Tag in Stunden | Geräuschpegel dBA, langsame Reaktion |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 1/2 | 102 |
| 1 | 105 |
| 1/2 | 110 |
| 1/4 oder weniger | 115 |

Laut OSHA kann jede Belastung über den obenstehenden zulässigen Grenzwerten zu einem gewissen Gehörverlust führen. Sollte die Belastung die obenstehenden Grenzwerte übersteigen, müssen beim Betrieb dieses Verstärkungssystems Ohrenstopfen oder Schutzvorrichtungen im Gehörgang oder über den Ohren getragen werden, um einen dauerhaften Gehörverlust zu verhindern. Um sich vor einer möglicherweise gefährlichen Belastung durch hohe Schalldruckpegel zu schützen, wird allen Personen empfohlen, die mit Geräten arbeiten, die wie dieses Verstärkungssystem hohe Schalldruckpegel erzeugen können, beim Betrieb dieses Geräts einen Gehörschutz zu tragen.

## BEWAHREN SIE DIESE SICHERHEITSHINWEISE AUF!

# TÄRKEÄT TURVALLISUUSOHJEET

**VAARA:** Käytettäessä sähkölaitteita tulee aina huomioida mm. seuraavat turvallisuusohjeet:

1. Lue nämä ohjeet.
2. Säilytä nämä ohjeet.
3. Huomioi kaikki varoitukset.
4. Noudata kaikkia ohjeita.
5. Älä käytä laitetta veden lähellä.
6. Puhdista vain kuivalla kankaalla.
7. Älä tuki mitään tuuletusaukkoja. Asenna valmistajan ohjeiden mukaisesti.
8. Älä asenna lämpölähteiden, kuten pattereiden, liesien tai muiden lämpöä tuottavien laitteiden (kuten vahvistinten) lähelle.
9. Älä poista polarisoidun tai maadoitustyyppisen tulpan suojausta. Polarisoidun tulpan toinen napa on leveämpi kuin toinen. Maadoitustulpassa on kaksi napaa ja kolmas maadoitusnapa. Leveä napa ja maadoitusnapa on tarkoitettu turvaamaan laitteen käyttöä. Jos mukana toimitettu tulppa ei sovi pistorasiaan, kutsu sähkömies vaihtamaan pistorasia, sillä se on vanhentunut.
10. Suojaa virtajohtoa päälle kävelemiseltä ja nipistykseltä, erityisesti pistotulppien, pistorasioiden sekä laitteen ulosvientien kohdalla.
11. Käytä vain valmistajan toimittamia lisälaitteita.
12. Käytä vain valmistajan määrittämän tai laitteen mukana myydyn vaunun, jalustan, kolmijalan, kiinnikkeen tai pöydän kanssa. Käytettäessä vaunua liikuta vaunun ja laitteen yhdistelmää varovasti, jotta vältetään loukkaantumiset kaatumisesta johtuen.
13. Irrota laite sähköverkosta ukkosmyrskyjen aikana tai jos laitetta ei käytetä pitkään aikaan.
14. Huoltaminen tulee jättää pätevän huoltohenkilöstön tehtäväksi. Huoltoa tarvitaan, kun laite on jollakin tavoin vioittunut, esim. virtalähteen johto tai pistoke on vioittunut, laitteen sisään on joutunut nestettä tai esineitä, laite on altistettu sateelle tai kosteudelle, laite ei toimi normaalisti tai se on pudonnut.
15. Älä koskaan katkaise maadoitusnastaa. Ottamalla meihin yhteyttä saat kirjasen "Sähköiskuvaara ja maadoitus". Kytke vain virtalähteeseen, joka vastaa laitteen virtajohdon viereen merkittyä tyyppiä.
16. Jos laite kiinnitetään laiteräkkiin, tulee se tukea takaosastaan.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:

    a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow.

    b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black.

    c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. Tätä sähkölaitetta ei tule altistaa nestetipoille tai roiskeille, eikä laitteen päälle saa asettaa nestettä sisältäviä esineitä, kuten maljakoita.
19. Laitteen virtakytkin ei katkaise ensiövirran molempia puolia. Laitteen sisällä voi olla vaarallinen jännite, kun virtakytkin on pois-asennossa. Virtajohto toimii pääkytkimenä, ja sen pitää olla aina käytettävissä.
20. Altistus erittäin korkeille äänitasoille voi aiheuttaa pysyvän kuulovaurion. Henkilöiden alttius melun aiheuttamille kuulovaurioille vaihtelee, mutta lähes kaikkien kuulo vaurioituu altistuttaessa riittävän kovalle melulle riittävän kauan. Yhdysvaltain hallituksen työturvallisuus- ja terveyshallinto (OSHA) on määrittänyt seuraavat hyväksyttävät melutasoaltistukset:

| Kesto päivää kohti tunteina | Äänitaso dBA, hidas vaste |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 1⁄2 | 102 |
| 1 | 105 |
| 1⁄2 | 110 |
| 1⁄4 tai alle | 115 |

OSHA:n mukaan altistus yo. tasoja korkeammalle määrälle voi aiheuttaa osittaisen kuulon menetyksen. Käytettäessä vahvistinjärjestelmää tulee kuulovaurioiden estämiseksi käyttää korvatulppia tai kuulosuojaimia, mikäli altistus ylittää yllä asetetut rajat. Jotta vältetään mahdollisesti vaarallinen altistus korkeille äänenpaineen tasoille, suositellaan, että kaikki korkeaa äänenpainetta tuottavien laitteiden, kuten tämän vahvistimen, lähistöllä olevat henkilöt suojaavat kuulonsa, kun laite on käytössä.

# SÄILYTÄ NÄMÄ OHJEET!

# VIKTIGA SÄKERHETSINSTRUKTIONER

**VARNING:** När du använder elektriska produkter ska grundläggande försiktighetsåtgärder iakttas, inklusive följande:

1. Läs dessa instruktioner.
2. Behåll dessa instruktioner.
3. Iakttag alla varningar.
4. Följ alla instruktioner.
5. Använd inte apparaten i närheten av vatten.
6. Rengör endast med en torr trasa.
7. Blockera inte ventilationsöppningarna. Installera i enlighet med tillverkarens instruktioner.
8. Installera inte i närheten av värmekällor som radiatorer, varmluftsventiler, spisar eller andra apparater (inklusive förstärkare) som ger ifrån sig värme.
9. Motverka inte säkerhetsfunktionen hos en jordad stickkontakt. En jordad stickkontakt har två stift och metallbleck på sidorna. Metallblecket finns där för din säkerhet. Kontakta en elektriker för utbyte av det föråldrade vägguttaget om den medföljande stickkontakten inte passar i ditt vägguttag.
10. Skydda strömsladden från att klivas på eller klämmas, särskilt vid kontakten, grenuttag och platsen där den lämnar apparaten.
11. Använd enbart tillsatser/tillbehör som tillhandahålls av tillverkaren.
12. Använd endast med en kärra, ställ, trefot, fäste eller bord i enlighet med tillverkarens specifikationer, eller som säljs tillsammans med apparaten. Var försiktig när du använder en kärra så att inga personskador uppstår på grund av att kombinationen kärra-apparat välter när den flyttas.
13. Koppla ur apparaten vid åskväder eller när den inte används under en längre tid.
14. Låt kvalificerad servicepersonal sköta all service. Service krävs om apparaten har skadats på något vis, till exempel om strömsladden eller stickkontakten har skadats, vätska har spillts eller föremål har fallit ner i apparaten, apparaten har utsatts för regn eller fukt, inte fungerar normalt eller har tappats.
15. Anslut aldrig till ojordade uttag. Skriv till oss för vårt gratishäfte ”Stötrisk och jordning”. Anslut endast till en strömkälla av samma typ som enhetens märkning anger (bredvid strömsladden).
16. Om produkten ska monteras i ett utrustningsrack bör bakre stöd användas.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:

    a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow.

    b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black.

    c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. Denna elektriska apparat bör inte utsättas för dropp eller stänk och försiktighet bör iakttas så att inte föremål som innehåller vätskor, såsom vaser, placeras ovanpå apparaten.
19. Enhetens strömbrytare bryter inte båda sidor av strömkretsen. Farlig energi kan förekoma inuti höljet när strömbrytaren är i av-läget. Stickkontakten eller apparatkontakten fungerar som bortkopplingsenhet, bortkopplingsenheten ska hållas lättillgänglig.
20. Extremt höga ljudnivåer kan orsaka permanent hörselskada. Olika personer skiljer sig åt i benägenhet att få hörselskador av oljud, men i princip alla får hörselskador om de utsätts för tillräckligt höga ljud under tillräcklig tid. Den amerikanska regeringens arbetsskydds- och hälsoförvaltning (OSHA) har angivit följande maxnivåer för tillåten exponering för oljud:

| Längd per dag i timmar | Ljudnivå dBA, långsam svarstid |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 ½ | 102 |
| 1 | 105 |
| ½ | 110 |
| ¼ eller mindre | 115 |

Enligt OSHA kan exponering utöver ovanstående tillåtna gränser orsaka hörselskador. Öronproppar eller skydd för hörselgången eller över öronen måste bäras när detta förstärkarsystem används för att förebygga permanenta hörselskador, om exponeringen överskrider gränsvärdena enligt ovan. För att skydda mot potentiellt farlig exponering för höga ljudtrycksnivåer rekommenderas det att personer som exponeras för utrustning som kan producera höga ljudtrycksnivåer såsom detta förstärkarsystem skyddas med hörselskydd när enheten är i drift.

# SPARA DESSA INSTRUKTIONER!

# VIKTIGE SIKKERHETSINSTRUKSJONER

**ADVARSEL:** Ved bruk av et elektrisk apparat må grunnleggende forsiktighetsregler følges, inklusive de følgende:

1. Les disse instruksjonene.
2. Ta vare på disse instruksjonene.
3. Følg alle advarslene.
4. Følg alle instruksjoner.
5. Ikke bruk apparatet i nærheten av vann.
6. Rengjør bare med en tørr klut.
7. Ikke blokker noen av ventilasjonsåpningene. Installer i henhold til produsentens instruksjoner.
8. Ikke installer i nærheten av en varmekilde som radiatorer, varmekanaler, ovn er eller andre apparater (inklusive forsterkere) som utvikler varme.
9. Ikke reduserer sikkerhetshensiktene med polariserte eller jordede støpsler. Et polarisert støpsel har to blader, der det ene er bredere enn det andre. Et støpsel med jording har to blader og en tredje jordingsplugg. Det brede bladet eller den tredje pluggen er der for å gi deg beskyttelse. Hvis det medfølgende støpslet ikke passer inn i den elektriske kontakten der du bor, kontakt en elektriker for å få støpslet skiftet.
10. Beskytt den elektriske ledningen mot å bli trådt på eller klemt, spesielt ved støpslet, stikkontakten og punktet der den kommer ut av apparatet.
11. Bruk bare tilkoblinger/tilbehør som er levert av produsenten.
12. Bruk bare med vogn, stativ, tripod, brakett eller bord spesifisert av produsenten eller solgt sammen med apparatet. Når det benyttes en vogn, vis forsiktighet når vogn/apparat flyttes for å unngå skade som følge av et velt.
13. Trekk ut ledningen til apparatet under tordenvær eller når det skal stå ubrukt over en lengre periode.
14. Overlat servicearbeidet til kvalifisert servicepersonell. Service er påkrevet når apparatet har vært utsatt for skade, som at den elektriske ledningen eller støpslet er skadet, væske er blitt sølt over apparatet eller en gjenstand har falt ned i apparatet, apparatet har vært utsatt for regn eller fuktighet, at det ikke virker normalt eller har falt i gulvet.
15. Bryt aldri av jordingspinnen. Skriv etter gratis hefte “Shock Hazard and Grounding” (Fare for elektrisk støt og jording). Tilkoble bare elektriske anlegg av den typen som er angitt på enheten ved siden av den elektriske ledningen.
16. Hvis dette produktet skal plasseres i en utstyrsreol må det etableres støtte på baksiden.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows: a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow. b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black. c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. Dette elektriske apparatet må ikke utsettes for drypp eller sprut fra væske, og det må utvises forsiktighet slik at det ikke plasseres gjenstander fylt med vann - som en vase - på apparatet.
19. På/av-bryteren på denne enheten bryter ikke begge sider av den primære strømkretsen. Farlig strøm kan finnes på innsiden av chassiset også når På/Av-bryteren er i posisjon Av. Det elektriske støpslet eller utstyrskoblingen brukes som frakoblingsutstyr, frakoblingsutstyret skal være lett å komme til og bruke.
20. Eksponering mot ekstremt høyt støynivå kan føre til permanent tap av hørsel. Det er betydelige individuelle forskjeller hva gjelder den enkeltes ømfintlighet hva gjelder støypåført tap av hørsel, men nesten alle vil tape noe hørsel dersom de utsettes for tilstrekkelig intens støy over en tilstrekkelig lang periode. U.S. Governments Occupational Safety and Health Administration (OSHA) har spesifisert følgende tillatte støynivåeksponeringer:

| Varighet pr. dag i timer | Lydnivå dBA, sakte respons |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 1⁄2 | 102 |
| 1 | 105 |
| 1⁄2 | 110 |
| 1⁄4 eller mindre | 115 |

I henhold til OSHA vil enhver eksponering ut over de ovenstående tillatte grensene kunne føre til noe tap av hørsel. Øreproppper eller beskyttelse av ørekanalene eller over ørene må anvendes når dette forsterkersystemet brukes for å hindre permanent tap av hørsel dersom eksponeringen overskrider grensene som vises ovenfor. For å beskytte mot potensielt farlig eksponering til høyt lydtrykknivåer anbefales det at alle personer som eksponeres mot utstyr som er i stand til å produsere høye lydtrykknivåer som dette forsterkersystemet må beskyttes av hørselsvern mens denne enheten er i bruk.

# OPPBEVAR DISSE INSTRUKSJONENE

# BELANGRIJKE VEILIGHEIDSINSTRUCTIES

**WAARSCHUWING:** Bij gebruik van elektrische producten, moeten elementaire voorzorgsmaatregelen altijd worden opgevolgd, waaronder het volgende:

1. Lees deze gebruiksaanwijzing.
2. Bewaar deze gebruiksaanwijzing.
3. Besteed aandacht aan alle waarschuwingen.
4. Volg alle instructies op.
5. Gebruik dit apparaat niet in de buurt van water.
6. Reinig het alleen met een droge doek.
7. Blokkeer geen ventilatieopeningen. Installeer volgens de instructies van de fabrikant.
8. Installeer niet in de buurt van warmtebronnen zoals radiatoren, kachels, ovens of andere apparaten (inclusief versterkers) die warmte produceren.
9. Omzeil nooit de veiligheidsvoorziening van de gepolariseerde of geaarde stekker. Een gepolariseerde stekker heeft twee bladen, waarvan er één breder is dan de andere. Een geaarde stekker heeft twee bladen en een derde aardingspen. Het bredere blad of de derde pen is bedoeld voor uw veiligheid. Mocht de geleverde stekker niet in uw stopcontact passen, raadpleeg dan een elektricien voor het vervangen van het verouderde stopcontact.
10. Bescherm het netsnoer zodat er niet over gelopen kan worden of bekneld kan raken, vooral bij stekkers, stopcontacten en het punt waar ze het apparaat verlaten.
11. Gebruik alleen aansluitstukken/accessoires geleverd door de fabrikant.
12. Gebruik uitsluitend een wagentje, standaard, statief, beugel of tafel die door de fabrikant wordt aanbevolen of bij het apparaat wordt verkocht. Wanneer u een wagentje gebruikt, wees dan voorzichtig bij het verplaatsen van de combinatie wagen/apparaat en voorkom letsel door omvallen.
13. Haal de stekker van dit apparaat uit het stopcontact tijdens bliksem of wanneer het apparaat gedurende lange perioden niet gebruikt wordt.
14. Laat al het onderhoud uitvoeren door gekwalificeerd onderhoudspersoneel. Onderhoud is nodig wanneer het apparaat op enige wijze beschadigd is, zoals het netsnoer of de stekker is beschadigd, er vloeistof in het apparaat is gemorst of voorwerpen in zijn terechtgekomen, het apparaat aan regen of vocht is blootgesteld, niet normaal werkt, of is gevallen.
15. Breek nooit de aardingspen af. Raadpleeg ons gratis boekje “Schokgevaar en aarding”. Sluit alleen op een voedingsspanning aan van het type aangegeven op het apparaat naast het netsnoer.
16. Als dit product in een apparatuurrek gemonteerd moet worden, moet voor achterondersteuning worden verzorgd.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows: a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow. b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black. c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. Dit elektrisch apparaat mag niet aan druip- of spatwater worden blootgesteld en er moet op gelet worden dat geen voorwerpen gevuld met vloeistoffen, zoals vazen, op het apparaat worden geplaatst.
19. De aan/uit-schakelaar van dit apparaat onderbreekt niet beide contacten van het lichtnet. Gevaarlijke spanning kan binnenin het chassis aanwezig zijn ondanks dat de aan/uit-schakelaar op uit staat. De stekker van het apparaat wordt gebruikt als onderbrekingsmechanisme, het onderbrekingsmechanisme dient eenvoudig bedienbaar te blijven.
20. Blootstelling aan extreem hoge geluidsniveaus kan permanent gehoorverlies veroorzaken. Individuen verschillen in gevoeligheid voor gehoorverlies door lawaai geïnduceerd, maar bijna iedereen zal enig gehoor verliezen indien voor een bepaalde duur aan voldoende intens lawaai blootgesteld. De Occupational Safety and Health Administration (OSHA) van de Amerikaanse regering heeft de volgende blootstellingen aan toelaatbaar lawaainiveau gespecificeerd:

| Duur per dag In uren | Geluidsniveau dBA, trage reactie |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 1⁄2 | 102 |
| 1 | 105 |
| 1⁄2 | 110 |
| 1⁄4 of minder | 115 |

Volgens OSHA, kan elke blootstelling boven de bovengenoemde toelaatbare grenswaarden tot enige gehoorverlies leiden. Oordoppen of -beschermers in de oorkanalen of over de oren moeten bij het bedienen van dit versterkersysteem worden gedragen om een permanent gehoorverlies te voorkomen, indien blootstelling boven de grenzen zoals hierboven zijn vermeld. Om potentieel gevaarlijke blootstelling aan hoge geluidsdruk te voorkomen, is het raadzaam om alle personen die aan apparatuur worden blootgesteld die in staat is om hoge geluidsdruk te produceren, zoals dit versterkersysteem, met gehoorbeschermers te beschermen wanneer dit apparaat in bedrijf is.

# BEWAAR DEZE INSTRUCTIES!

# IMPORTANTI NORME DI SICUREZZA:

**ATTENZIONE:** Durante uso di apparecchiature elettriche vanno osservate alcune precauzioni basilari, tra cui le seguenti:

1. Leggete queste istruzioni.
2. Conservate le istruzioni.
3. Rispettate tutte le avvertenze.
4. Seguite le istruzioni.
5. Non usate questo prodotto vicino all'acqua.
6. Pulite esclusivamente con un panno asciutto.
7. Non ostruite le fessure di ventilazione. Installate il dispositivo seguendo le istruzioni del produttore.
8. Il prodotto va collocato lontano da sorgenti di calore quali radiatori, pompe di calore, stufe o altri dispositivi che generano calore (compresi gli amplificatori).
9. Non eliminate i dispositivi di sicurezza come spine polarizzate o con messa a terra. La spina polarizzata ha due lame, una più grande dell'altra. La spina con messa a terra ha due contatti più un terzo per la terra. Il contatto più largo o terzo polo è indispensabile per la vostra sicurezza. Se la spina fornita non adatta alla vostra presa, mettetevi in contatto con un elettricista per la sostituzione della presa obsoleta.
10. Fate attenzione a non camminare o incastrare il cavo di alimentazione, soprattutto in prossimità della spina o del punto in cui si collega all'apparecchiatura.
11. Usate solo accessori originali forniti dal costruttore.
12. L'apparato va usato esclusivamente con il supporto indicato dal produttore o venduto con l'apparato. Se intendete adoperare un carrello su ruote, fate attenzione quando spostate apparecchio e supporto per evitare che la loro caduta possa causare danni a cose o persone.
13. Scollegatelo l'apparecchio dalla presa di corrente durante un temporale con fulmini o quando non s'intende usare per un lungo periodo.
14. L'assistenza va eseguita esclusivamente da personale autorizzato. È necessario ricorrere all'assistenza se il dispositivo ha subito danni, per esempio si sono rovinati il cavo di alimentazione o la spina, all'interno è caduto del liquido o un oggetto, il dispositivo è rimasto esposto alla pioggia o all'umidità, non funziona normalmente o è caduto a terra.
15 Non rimuovete lo spinotto della terra. Collegate il dispositivo esclusivamente a una presa di corrente del tipo indicato accanto alla targhetta posta vicino al cavo di alimentazione.
16. Se questo prodotto deve essere montato a rack, è necessario sostenerlo anche nella parte posteriore.
17. Nota per UK: Se i colori dei fili nel cavo di alimentazione per questa unità non corrispondono con i terminali della vostra spina, procedere come segue: a) Il filo di colore verde/giallo deve essere collegato al terminale che marcato con lettera E, o simbolo di terra, o colore verde o verde/giallo. b) Il filo di colore blu deve essere collegato al terminale marcato con la lettera N o di colore Nero. c) Il filo di colore marrone deve essere collegato al terminale marcato con la lettera L o di colore Rosso.
18. Questo apparato elettrico non deve essere esposto a gocce o schizzi, va in ogni caso evitato di appoggiare oggetti contenenti liquidi, come bicchieri, sull'apparecchio.
19. L'interruttore on/off in questa unità non interrompe entrambi i lati della rete di alimentazione. All'interno dell'apparecchio può essere presente elettricità anche con interruttore on/off in posizione off. La spina o il cavo di alimentazione è utilizzato come sezionatore, il dispositivo di sezionamento deve restare sempre operativo.
20. L'esposizione a livelli di volume molto elevati può causare la perdita permanente dell'udito. La predisposizione alla perdita dell'udito causata da livelli elevati di volume varia notevolmente da persona a persona, ma quasi tutti subiscono una perdita di udito almeno parziale se soggetti a volume di livello elevato per un tempo sufficientemente lungo. L'ufficio Lavoro e Salute del governo degli USA (OSHA) ha elaborato la seguente tabella di tolleranza ai rumori:

| Esposizione giornaliera in ore | Livello sonoro dBA, Slow response |
|---|---|
| **8** | **90** |
| **6** | **92** |
| **4** | **95** |
| **3** | **97** |
| **2** | **100** |
| **1 1⁄2** | **102** |
| **1** | **110** |
| **1⁄4 o minore** | **115** |

Secondo l'OSHA, l'esposizione a livelli di volume al di sopra dei limiti stabiliti può causare una perdita almeno parziale dell'udito. Quando si adopera questo sistema di amplificazione, è necessario indossare auricolari o apposite protezioni per il condotto auditivo, per evitare la perdita permanente dell'udito se l'esposizione supera i limiti sopra riportati.Per evitare di esporvi al rischio di danni derivanti da elevati livelli di pressione sonora, si raccomanda di adoperare delle protezioni per gli orecchi quando si usano attrezzature in grado di produrre elevati livelli sonori, come quest'amplificatore.

## CONSERVATE QUESTE ISTRUZIONI!

# INSTRUÇÕES IMPORTANTES DE SEGURANÇA

**ADVERTÊNCIA:** Ao usar eletrodomésticos, precauções básicas devem sempre ser seguidas, incluindo as seguintes:

1. Leia estas instruções.
2. Mantenha estas instruções.
3. Preste atenção a todas as advertências.
4. Siga todas as instruções.
5. Não use este aparelho perto d'água.
6. Limpe somente com um pano seco.
7. Não obstrua nenhuma das aberturas de ventilação. Instale de acordo com as instruções do fabricante.
8. Não instale perto de nenhuma fonte de calor tais como radiadores, registros de calor, fogões ou outros aparelhos (incluindo amplificadores) que produzam calor.
9. Não desafie o propósito de segurança do plugue polarizado ou do tipo aterrado. Um plugue polarizado tem duas lâminas com uma mais larga que a outra. Um plugue do tipo aterrado tem duas lâminas e um terceiro plugue terra. A lâmina larga ou o terceiro pino são fornecidos para sua segurança. Se o plugue disponibilizado não couber em sua tomada, consulte um eletricista para troca da tomada obsoleta.
10. Proteja o cabo de energia para não ser pisado ou espremido principalmente em plugues, recipientes e o ponto de onde sai do aparelho.
11. Use apenas conexões/acessórios fornecidos pelo fabricante.
12. Use apenas um carrinho, banqueta, tripé, suporte, ou mesa especificado pelo fabricante, ou vendido com o aparelho. Quando um carrinho for usado, tome cuidado ao mover a combinação carrinho/aparelho para evitar ferimentos por tombamento.
13. Tire esse aparelho da tomada durante tempestades de raios ou quando for ficar sem usar por longos períodos de tempo.
14. Entregue todos os consertos apenas a pessoal qualificado. O conserto é necessário quando o aparelho tiver sofrido qualquer dano, tais como o cabo de energia ou plugue estiverem danificados, líquidos tenham sido derramados ou objetos tenham caído no aparelho, o aparelho tenha sido submetido à chuva ou umidade, não funcionar normalmente, ou tenha sido deixado cair.
15. Nunca quebre fora o pino terra. Escreva pedindo nosso livreto grátis "Perigos de Choque e Aterramento." Ligue apenas a um suprimento de energia do tipo marcado na unidade adjacente ao fio de fornecimento de energia.
16. Se este produto for ser montado em uma estante para equipamentos, deve ser montado um suporte traseiro.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:

    a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow.

    b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black.

    c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. Este aparelho elétrico não deve ser exposto a pingos ou respingos e deve ser tomado cuidado para não colocar objetos contendo líquidos, tais como vasos, sobre o aparelho.
19. O comutador liga/desliga nesta unidade não interrompe ambos os lados da rede elétrica primária. Energia perigosa pode estar presente dentro do chassi quando o comutador liga/desliga estiver na posição desligado. O plugue de alimentação ou um dispositivo de união é usado como dispositivo de desligamento, o dispositivo de desligamento deve permanecer pronto para funcionar.
20. Exposição a níveis de barulho extremamente altos podem causar perda permanente de audição. As pessoas variam consideravelmente em susceptibilidade a perda de audição causada por ruídos, mas quase todo mundo vai perder algo da audição se exposto a ruído suficientemente intenso por tempo suficiente. A Administração de Segurança Ocupacional e Saúde americana (OSHA) especificou os seguintes níveis permissíveis de exposição a ruído:

| Duração Por Dia Em Horas | dBA de Nível de Som, Resposta Lenta |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1 1⁄2 | 102 |
| 1 | 105 |
| 1⁄2 | 110 |
| 1⁄4 ou menos | 115 |

De acordo com a OSHA, qualquer exposição excedente aos limites permissíveis acima pode resultar em alguma perda de audição. Tampões de ouvido ou protetores sobre os canais do ouvido ou sobre as orelhas precisam ser usados ao operar este sistema de amplificação para poder evitar uma perda permanente de audição, se a exposição for em excesso aos limites acima estabelecidos. Para assegurar contra exposição perigosa potencial a níveis de alta pressão de ruído, é recomendado que todas as pessoas expostas a equipamento capaz de produzir níveis de alta pressão de ruído tais como este sistema de amplificação estejam protegidas por protetores de ouvido enquanto esta unidade estiver em funcionamento.

## GUARDE ESSAS INSTRUÇÕES!

# 安全のための重要事項

**警告:** 電気製品を使用するときは、次の項目を含め、基本的な注意事項を常にお守りください。

CE

1. 本書の指示内容をお読みください。
2. 本書は保管してください。
3. すべての警告に注意してください。
4. すべての指示に従ってください。
5. 本装置を水の近くで使用しないでください。
6. お手入れには乾いた布をお使いください。
7. 開口部をふさがないでください。メーカーの指示に従って設置してください。
8. ラジエータ、ストーブなど (アンプを含む)、発熱体の近くに設置しないでください。
9. 分極プラグや接地プラグの安全性を損なわないようにしてください。分極プラグの2つのブレードは、一方が他より幅広くなっています。接地式のプラグには2つのブレードと接地プラグがあります。幅広のブレードや接地プラグは安全のために付けられています。所定のプラグがコンセントなどに合わない場合、旧式のコンセントなどの交換について技術者に問い合わせてください。
10. 電源コードを踏んだり挟んだりしないように保護してください。特にプラグ、コンセント、装置から出る部分を保護してください。
11. 備品/付属品はメーカーのものを使用してください。
12. カート、スタンド、三脚、ブラケット、テーブルなどは、メーカー指定のもの、または装置とともに販売されているもの使用してください。カートを使用するときは、カートと装置を動かしたときに横転などでケガをしないよう注意してください。
13. 落雷の恐れのある嵐のとき、または長期間使用しないときは本装置の電源を外してください。
14. 保守作業はすべて資格のあるサービス担当者に依頼してください。保守作業が必要になるのは、装置が故障した場合、たとえば、電源コードやプラグが破損、装置に液体がかかる。物が落ちる、雨など湿度の影響を受ける、正常に動作しない、落下した場合などです。
15. グランドピン(接地ピン)は決して取り外さないでください。フリーブックレット「感電と接地」を入手してください。装置の電源コードの横に記載されているタイプの電源にのみ接続してください。
16. 本製品をラックに載せる場合は、背面を支持するものが必要です。
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows: a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow. b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black. c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. 電気機器に水がかからないようにしてください。花瓶など液体の入ったものを装置に置かないように注意してください。
19. オン/オフスイッチは、主電源のどちらの側も切断しません。オン/オフスイッチがオフ位置のとき、シャシー内部のエネルギー(高電圧)は危険なレベルにあります。主電源プラグまたは機器のカプラが切断装置になっています。切断装置はすぐに動作し使用できる状態にしておく必要があります。
20. 極めて高い騒音レベルは聴覚を永久に損なう原因になることがあります。騒音による聴覚障害の可能性は人によって異なりますが、十分に高い騒音を十分長い時間浴びた場合には、ほぼすべての人が何らかの障害を被ります。米国労働安全衛生庁 (OSHA) は、許容できるノイズレベル(騒音暴露レベル)を次のように定めています。

| 1日当たりの時間 | サウンドレベルdBA、スローレスポンス |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1½ | 102 |
| 1 | 105 |
| ½ | 110 |
| 1/4 以下 | 115 |

OSHAによると、上記許容限度を超える場合は聴覚障害の原因になります。騒音が上記限度を超える場合は、永久的な聴覚障害を避けるため、このアンプシステムの操作時に、外耳道または耳全体にイヤプラグやプロテクタを装着する必要があります。高音圧レベルによる危険な状態を避けるため、このアンプシステムのような高音圧レベルを出力する機器に触れる人はすべて、本機を使用中はプロテクタにより聴覚を保護することをおすすめします。

## 本書は保管してください!

# 重要安全事项

**警告：**操作电器产品时，请务必遵守基本安全注意事项，包括：

1. 阅读说明书。
2. 妥善保管说明书。
3. 注意所有安全警告。
4. 按照要求和指示操作。
5. 请勿在靠近水（或其它液体）的地方使用本机。
6. 本机只能用干燥布料擦拭。
7. 请勿遮盖任何通散热口。确实依照本说明书安装本机。
8. 请勿将本机安装在任何热源附近，例如电暖器、蓄热器件、火炉或其他发热电器（包括功率放大器）。
9. 请勿破坏两脚型插头或接地型插头的安全装置。两脚型插头有两个不同宽度的插头片，一个窄，另一个宽一点。接地型插头有两个相同的插头片和一个接地插脚。两脚型插头中宽的插头片和接地型插头接地插脚起着保障安全的作用。如果所附带的插头规格与您的插座不匹配，请让电工更换插座以保证安全。
10. 请勿踩踏或挤压电源线，尤其是插头、插座、设备电源输入接口或者电源线和机身连接处。
11. 本机只可以使用制造商指定的零件 / 配件。
12. 本机只可以使用与本机搭售或由制造商指定的机柜、支架、三角架、托架或桌子。使用机柜时，请小心移动已安装设备的机柜，以避免机会推翻造成身体伤害。
13. 在雷雨天或长期不使用的情况下，请拔掉电源插头。
14. 所有检查与维修都必须由指定的专业维修人员进行。如本机的任何形式的损伤都须检修，例如电源线或插头受损，有液体或物体落入机身内，曾暴露于雨天或潮湿的地方，不能正常运作，或曾掉落后损坏等。
15. 不得拔出接地插脚。请写信索取免费手册《 Shock Hazard and Grounding》。使用前，请仔细检查确认所使用的电源电压是否匹配设备上标注的额定电压。
16. 如果本机装在机柜中 , 其后部也应给予相应的支撑固定。
17. **Note for UK only:** If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows:

    a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow.

    b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black.

    c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. 本机不得暴露于滴水或溅水中。请勿将诸如花瓶等装有液体的物体放置于本机上。
19. 本机电源开关不能同时断开两端的电源，完全切断外部电源。因此当开关位于“OFF”位置时，本机外壳仍有可能带有触电的危险。电源插头或耦合器能够与设备或者电源容易分开，保证电源的完全切断，从而保证安全。
20. 声压级较高的噪音容易造成听力的永久性损失。因噪声而造成的听力损失程度 , 个体间的差异较大 , 但几乎每个人在声压级较高的噪音环境里一定时间，都会有不同程度的听力损失。美国政府职业安全与保健管理局（OSHA）就此规定了下列容许噪声级：

| 每天持续小时数 | 声压级（dBA）慢反应 |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1½ | 102 |
| 1 | 105 |
| ½ | 110 |
| ¼ 或更少 | 115 |

据 OSHA, 任何超出以上所允许的范围 , 都会造成部分听力的损失。使用本功放系统时，必须佩戴如耳塞等保护耳朵的器件，防止长时间处于上述限制级以上的环境而引起永久性听力受损。本机运行时，如果超过上述所规定的最大限制，为了抵御较高的声压对于听受损所造成的潜在危险，建议使用诸如功放系统等引起高声压级噪声的所有人均佩戴保护耳朵的器件。

## 请妥善保管本说明书！

# 중요 안전 지침

**경고:** 전기 제품 사용 시 다음 사항을 포함해 기본적인 주의 사항을 항상 따라야 합니다.

1. 이 지침을 읽어 주십시오.
2. 이 지침을 준수하여 주십시오.
3. 모든 경고 사항에 주의해 주십시오.
4. 모든 지침을 따라 주십시오.
5. 물기가 있는 근처에서 이 기기를 사용하지 마십시오.
6. 마른 헝겊으로만 청소해 주십시오.
7. 통풍구를 막지 마십시오. 제조업체의 지침에 따라 설치해 주십시오.
8. 라디에이터, 가열기, 난로 또는 열을 발산하는 기타 기기(앰프 포함) 근처에 설치하지 마십시오.
9. 극성 플러그나 접지형 플러그의 안전 용도를 무시하지 마십시오. 극성 플러그는 한쪽 날이 다른 쪽보다 더 넓습니다. 접지형 플러그에는 2개의 날과 1개의 접지 플러그가 있습니다. 넓은 날 또는 1개의 접지 플러그는 안전을 위해 제공됩니다. 제공된 플러그가 사용자의 콘센트에 맞지 않으면 구식 콘센트의 교체에 대해 전기 기술자에게 문의하십시오.
10. 전원 코드 특히, 플러그, 소켓 및 기기에서 나오는 지점이 밟히거나 집히지 않도록 보호하십시오.
11. 제조업체에서 제공하는 부착 장치/액세서리만을 사용하십시오.
12. 제조업체에서 지정하거나 기기와 함께 판매되는 카트, 스탠드, 삼각대, 브래킷 또는 테이블만을 사용하십시오. 카트 사용 시 카트/기기 결합물을 움직일 때 전복으로 인해 부상을 입지 않도록 주의해 주십시오.
13. 번개와 폭풍이 올 때 그리고 장기간 사용하지 않을 때는 이 기기의 플러그를 뽑아 놓으십시오.
14. 자격을 갖춘 서비스 요원에게 모든 서비스를 의뢰하십시오. 전원 공급 코드 또는 플러그가 손상되거나 액체를 엎지르거나 기기 안에 이물질을 떨어뜨리거나 비 또는 습기에 기기를 노출하거나 정상적으로 작동하지 않거나 기기를 떨어뜨린 경우와 같이 기기가 손상된 경우에는 서비스를 받아야 합니다.
15. 접지 핀을 제거하지 마십시오. 당사의 무료 소책자인 “감전 위험 및 접지”을 우편으로 주문해 주십시오. 전원 공급 코드의 기기에 표시된 유형의 전원 공급 장치만 연결해 주십시오.
16. 이 제품을 장비 랙에 장착할 경우에는 후면 지지대를 설비해야 합니다.
17. Note for UK only: If the colors of the wires in the mains lead of this unit do not correspond with the terminals in your plug, proceed as follows: a) The wire that is colored green and yellow must be connected to the terminal that is marked by the letter E, the earth symbol, colored green or colored green and yellow. b) The wire that is colored blue must be connected to the terminal that is marked with the letter N or the color black. c) The wire that is colored brown must be connected to the terminal that is marked with the letter L or the color red.
18. 전기 기기가 비나 물방울에 노출되지 않도록 주의하고 꽃병과 같이 용액이 들어 있는 물체를 기기 위에 놓지 않도록 주의해 주십시오.
19. 본 기기의 ON/OFF 스위치는 양쪽의 주 기기 전원을 차단하지 않습니다. ON/OFF 스위치가 OFF 위치에 있더라도 섀시 내부에 위험한 전기가 흐를 수 있습니다. 기본 플러그 또는 기기 커플러는 분리 장치로 사용됩니다. 분리 장치는 바로 사용 가능한 상태로 두어야 합니다.
20. 매우 높은 소음에 노출되면 영구적으로 청각이 손상될 수 있습니다. 소음으로 인한 청각 손상 가능성은 개인별로 매우 다르지만 장시간 매우 강한 소음에 노출되면 거의 모든 사람들에게 어느 정도의 청각 손상이 발생합니다. 미국 정부의 OSHA(작업 안전 및 건강 관리국)은 다음과 같이 용인 가능한 소음 노출을 규정하고 있습니다.

| 일별 지속 시간 | 소음 수준 dBA, 저속 반응 |
|---|---|
| 8 | 90 |
| 6 | 92 |
| 4 | 95 |
| 3 | 97 |
| 2 | 100 |
| 1½ | 102 |
| 1 | 105 |
| ½ | 110 |
| ¼ 이하 | 115 |

**OSHA**에 따르면 용인 가능한 위 제한 수치를 초과하여 노출된 경우 일부 청각이 손상될 수 있습니다. 위에 명시된 제한치를 초과하여 노출되는 경우 영구적인 청각 손상을 예방하려면 이 앰프 시스템 사용 시 귀마개 또는 귀 전체를 덮는 보호구를 착용해야 합니다. 잠재적으로 위험한 높은 음압에 노출되지 않도록 하려면 이 앰프 시스템과 같이 높은 음압을 생성할 수 있는 장비에 노출되는 모든 사람이 기기가 작동하는 동안 청각 보호구를 착용하는 것이 좋습니다.

**이 지침을 잘 보관해 주십시오!**

# تعليمات الأمان المهمة

**تحذير:** عند استخدام المنتجات الكهربية، يجب اتباع الاحتياطات الأساسية دائما، والتي تشمل التالي:

1. قراءة هذه التعليمات.
2. الحفاظ على هذه التعليمات.
3. الانتباه لجميع التحذيرات.
4. اتباع هذه التعليمات.
5. عدم استخدام هذا الجهاز على مقربة من الماء.
6. ينظف فقط بقطعة قماش جافة.
7. لا تقم بسد أي فتحات تهوية. يتم التثبيت وفقا لتعليمات المصنع.
8. لا تضع الجهاز بالقرب من أي مصادر حرارة مثل المبردات، والمدفأت، أو المواقد أو أي أجهزة أخرى (بما فيها مكبرات الصوت) التي يصدر عنها حرارة.
9. لا تتسبب في فشل الغرض من أمان قابس الكهرباء القطبي أو من النوع الأرضي. القابس القطبي به سنان أحدهما أعرض من الثاني. القابس من النوع الأرضي به سنان وقابس أرضي ثالث. القابس مزود بسن عريضة أو يتم توفير السن الثالث من أجل سلامتك. إذا لم يناسب القابس الثالث مقبس الحائط الخاص بك، استشر فني كهرباء لاستبدال المقبس القديم.
10. قم بحماية كبل الكهرباء من المشي عليه أو ضغطه، خاصة في القوابس، والمقابس الملائمة، وموضع خروجها من الجهاز.
11. استخدم المرفقات / الملحقات المقدمة من المصنع فقط.
12. استخدمه فقط مع الحامل، والمنضدة، والمحمل، والمسند، أو الطاولة التي حددها المصنع، أو التي تباع مع الجهاز. عند استخدام العربة، خذ حذرك عند تحريك العربة / مجموعة الجهاز لتجنب إصابتك عند الانقلاب.
13. انزع قابس الجهاز أثناء عواصف البرق أو عند عدم استخدامه لفترات طويلة.
14. ارجع في جميع أعمال الصيانة للموظفين المؤهلين. يجب إجراء الصيانة عند تعرض الجهاز للتلف بأي طريقة، مثل تلف كبل مزود الكهرباء أو القابس، أو عند سقوط سائل أو أشياء على الجهاز، أو عند تعرض الجهاز للمطر أو للرطوبة، أو إذا لم يعمل بصورة طبيعية، أوفي حالة سقوطه على الأرض.
15. لا تقم أبدا بقطع الموصل الأرضي. راسلنا للحصول على كتيب "خطر الإصابة بالصواعق والأطراف الكهربية الأرضية" المجاني الخاص بنا. وصل الجهاز فقط بمزود كهرباء من النوع المحدد على الوحدة المجاورة لكبل مزود الطاقة.
16. يجب توفير الدعم الخلفي عند تركيب الجهاز على رف معدات.
17. ملاحظة للمملكة المتحدة فقط: إذا كانت ألوان الأسلاك في الأطراف الرئيسية لهذه الوحدة لا تتوافق مع العلامات الملونة المحددة للأطراف في المقبس الخاص بك، اتبع ما يلي:
    أ) يجب توصيل السلك الملون بالأخضر والأصفر بالطرف المميز بالحرف E، أو رمز الأرضي أو الملون بالأخضر أو الأخضر والأصفر.
    ب) يجب توصيل السلك الملون باللون الأزرق بالطرف المميز بالحرف N، أو ذو اللون الأسود.
    ج) يجب توصيل السلك الملون بالبني بالطرف المميز بالحرف L، أو ذو اللون الأحمر.
18. لا يجب تعريض هذا الجهاز الكهربي لتنقيط أو رش السوائل، كما يجب العناية به بعدم وضع الأشياء التي تحتوي على سوائل، مثل الزهريات، فوق الجهاز.
19. لا يعطل مفتاح التشغيل/الإيقاف بهذه الوحدة جانبي الأطراف الرئيسية الأولية. قد توجد شحنات كهربية خطرة داخل هيكل الجهاز عندما يكون مفتاح التشغيل/الإيقاف في وضع الإيقاف. يتم استخدام قابس الأطراف الرئيسية أو وصلة الجهاز كجهاز قطع الاتصال، الذي يجب أن يظل قابل للتشغيل.
20. قد يسبب التعرض لمستويات ضوضاء عالية جدا إلى فقدان سمع دائم. يختلف الأشخاص في مدي حساسيتهم للضوضاء التي تؤدي لفقدان السمع لحد بعيد، لكن تقريبا قد يفقد الشخص بعض من سمعه إذا تعرض لقدر كافي من الضوضاء الشديدة وذلك لوقت كافي. وقد حددت إدارة الصحة والأمان المهني بالحكومة الأمريكية مستوي التعرض المسموح به للضوضاء:

| مستوي الصوت بالديسيبل، الاستجابة التدريجية | المدة يوميا بالساعات |
|---|---|
| 90 | 8 |
| 92 | 6 |
| 95 | 4 |
| 97 | 3 |
| 100 | 2 |
| 102 | 1 1/2 |
| 105 | 1 |
| 110 | 1/2 |
| 115 | 1/4 أو أقل |

وفقا لإدارة الصحة والأمان المهني، فإن أي تعرض أعلى من الحدود المسموح بها يمكن أن يؤدي إلى فقدان جزئي للسمع. يجب ارتداء سدادات الأذن أو واقيات قنوات الأذن أو فوق الأذن عند تشغيل أنظمة تكبير الصوت وذلك لمنع فقدان السمع الدائم، إذا كان التعرض يزيد على الحدود التي تم عرضها في النقطة الرابعة أعلاه. للضمان من التعرض الخطر المحتمل لمستويات ضغط صوتي عالية، ينصح جميع الأشخاص المعرضين لمعدات قادرة على إصدار مستويات ضغط صوتي عالية مثل أنظمة مكبرات الصوت أن يستخدموا واقيات الأذن لحمايتهم أثناء التشغيل.

## احفظ هذه التعليمات!

**FCC Compliancy Statement**

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, that may cause undesired operation.

**Warning:** Changes or modifications to the equipment not approved by Peavey Electronics Corp. can void the user's authority to use the equipment.

**Note -** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Peavey Electronics Corporation • 5022 Hartley Peavey Drive • Meridian, MS • 39305
(601) 483-5365 • FAX (601) 486-1278 • www.peavey.com • 80305780 • ©2011

Logo referenced in Directive 2002/96/EC Annex IV(OJ(L)37/38,13.02.03 and defined in EN 50419: 2005

The bar is the symbol for marking of new waste and is applied only to equipment manufactured after 13 August 2005

Correct Disposal of this product. This marking indicates that this product should not be disposed with other house hold wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems, or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

Logotipo al que se hace referencia en la Directiva 2002/96/EC AnexoIV(OJ(L)37/38,13.02.03 y definido en EN 50419: 2005

La barra es el símbolo para marcar los nuevos desechos y se aplica solamente a equipamiento fabricado después del 13 de agosto de 2005

Forma correcta de deshacerse de este producto. Esta marca indica que este producto no debe arrojarse junto con otros desperdicios domésticos en ningún lugar de la Unión Europea. Para evitar posibles daños al medio ambiente o a la salud humana debidos a desechos no controlados de desperdicios, recíclelo responsablemente para promover la reutilización sostenible de los recursos materiales. Para devolver su dispositivo usado, utilice los sistemas de devolución recolección, o contacte con el vendedor minorista donde compró el producto. Ellos pueden llevar este producto al reciclado seguro para el medio ambiente.

Logo documenté dans l'annexe de la Directive 2002/96/EC IV_(OJ(L)37/38,13.02.03 et défini par la norme EN 50419:2005

La barre est le symbole de signalisation des nouveaux déchets qui s'applique uniquement aux équipements fabriqués après le 13 août 2005

Recyclez correctement ce produit. Cette signalisation indique que ce produit ne doit pas être jeté avec les autres déchets domestiques dans les pays de l'UE. Pour éviter toute atteinte à l'environnement ou à la santé humaine par des décharges sauvages, recyclez ce produit de manière responsable pour encourager la réutilisation durable des ressources matérielles. Pour retourner votre appareil usé, veuillez utiliser les systèmes de collecte et de retour, ou contactez le revendeur à qui vous avez acheté le produit. Il prendra en charge ce produit de manière à protéger l'environnement.

Logo eingetragen in Richtlinie 2002/96/EC Anhangl IV_(OJ(L)37/38, 13.02.03 und definiert in EN 50419: 2005

Der Balken ist das Symbol zur Kennzeichnung neuen Abfalls und wird nur auf Geräten angebracht, die nach dem 13. August 2005 gefertigt wurden

Entsorgen Sie dieses Produkt umweltgerecht. Diese Kennzeichnung bedeutet, dass das Produkt innerhalb der EU nicht mit dem Hausmüll entsorgt werden darf. Zur Vermeidung von Umwelt- und Gesundheitsschäden durch unkontrollierte Entsorgung recyceln Sie das Gerät bitte. Geben Sie das Gerät an einer Sammelstelle für Elektroaltgeräte ab oder wenden Sie sich an Ihren Fachhändler.

Logo viitattu direktiivin 2002/96/EY liitteen IV(OJ(L)37/38,13.02.03 mukaisesti, määritelty standardissa EN 50419: 2005

Palkki on uuden jätteen merkintäsymboli ja sitä käytetään vain 13. elokuuta 2005 jälkeen valmistetuissa laitteissa

Tuotteen oikea hävittäminen. Tämä merkki ilmaisee, että tuotetta ei saa hävittää muun talousjätteen mukana EU:n alueella. Jotta estetään mahdolliset valvomattoman jätteiden hävittämisen haitat ympäristölle tai ihmisten terveydelle, kierrätä tuote vastuullisesti ja edistä materiaalien kestävää uudelleenkäyttöä. Voit palauttaa käytetyn laitteen käyttämällä keräysjärjestelmiä tai ottamalla yhteyttä jälleenmyyjään, jolta laite ostettiin. He voivat toimittaa tuotteen ympäristön kannalta turvalliseen kierrätykseen.

Logotyp som hänvisas till i direktiv 2002/96/EG bilaga IV(OJ(L)37/38,13.02.03 och definieras i EN 50419: 2005

Stapeln är symbolen för märkning av nytt avfall och är endast tillämplig på utrustning som tillverkats efter 13 augusti, 2005

Korrekt bortskaffande av denna produkt. Denna märkning betyder att produkten inte skall bortskaffas tillsammans med annat hushållsavfall i hela EU. För att förhindra eventuella skador för miljön eller människors hälsa från okontrollerat bortskaffande av avfall, återvinn det ansvarsfullt för att främja hållbar återanvändning av materiella resurser. För att returnera din använda enhet, använd återanvändnings- och uppsamlingssystem, eller kontakta den återförsäljare där produkten köptes. De kan ta hand om denna produkt för miljösäker återvinning.

Het logo waarnaar wordt verwezen in de bijlage van Richtlijn 2002/96/EG IV(OJ(L)37/38,13.02.03 en omschreven in EN 50419: 2005

De balk is het symbool voor het markeren van nieuw afval en wordt alleen toegepast op apparatuur dat is vervaardigd na 13 augustus 2005

Juiste verwijdering van dit product. Deze markering geeft aan dat dit product nergens in de Europese Unie met ander huishoudelijk afval mag worden afgevoerd. Om mogelijke schade aan het milieu of gezondheid door ongecontroleerde afvalverwijdering te voorkomen, recycle het op een verantwoorde wijze om het duurzame hergebruik van materiaalgrondstoffen te bevorderen. Om uw gebruikte apparaat in te leveren, kunt u gebruik maken van de inlever- en verzamelsystemen of contact opnemen met de verkoper waar het product is gekocht. Zij kunnen dit product innemen voor het milieuvriendelijk recycling.

Simbolo presente nell'allegato IV_(OJ(L)37/38,13.02.03 della direttiva 2002/96/CE e definito nello standard EN 50419: 2005

La barra è il simbolo indicante un nuovo rifiuto ed è applicata esclusivamente ad apparecchiature prodotte successivamente al 13 agosto 2005

Corretto smaltimento di questo prodotto. Questo simbolo indica che questo prodotto non deve essere smaltito insieme ad altri rifiuti domestici in tutta Europa. Per prevenire possibili danni all'ambiente o alla salute umana dovuti allo smaltimento non regolamentato dei rifiuti, è necessario riciclarlo responsabilmente al fine di promuovere il riutilizzo sostenibile delle risorse materiali. Per restituire il dispositivo usato, utilizzare i sistemi di restituzione e raccolta o contattare il rivenditore presso il quale il prodotto è stato acquistato. Quest'ultimo può occuparsi del riciclaggio ambientale sicuro di questo prodotto.

标志参照 2002/96/EC 指令附录 IV(OJ(L)37/38,13.02.03 和 EN 50419: 2005 定义

条码符号标示新废弃物，仅适用于 2005 年 8 月 13 日后生产的设备

正确处理此产品。此标志表明该产品在整个欧盟区内不应该与其他家居生活废弃物一同处置。为防止因无控废弃物处置对环境或人类健康可能造成的危害，请负责地回收并促进可重复使用的物质资源。要返还旧设备，请使用退返收集系统，或联系购买此产品的零售商。他们会为环境安全回收此产品。

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# ENGLISH

# S-32® Sanctuary Series™

**Console Mixer**

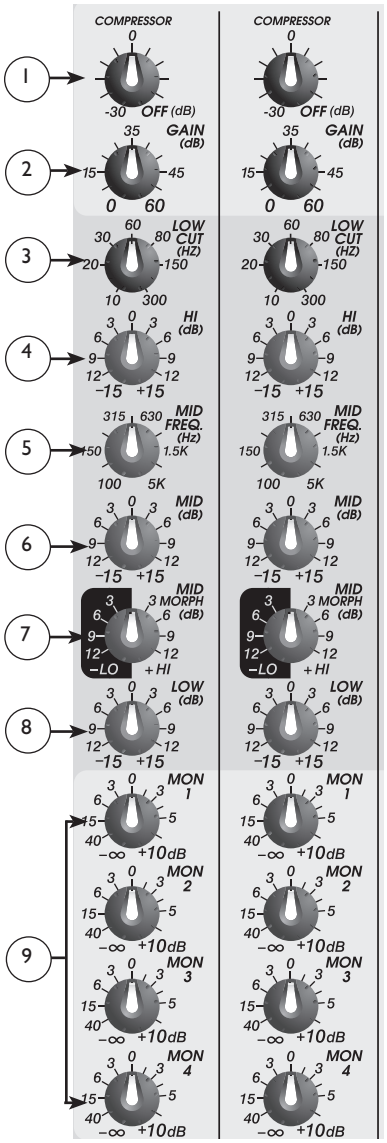
Congratulations on purchasing the Peavey S-32 Sanctuary Series Console Mixer. The S-32 is a thirty-two channel mixing console specifically designed to meet the needs of moderately sized venues. The challenge many houses of worship face is to provide high-quality sound where the experience level of the operator can range from novice to seasoned. The S-32 Sanctuary Series mixing system meets this challenge by incorporating a unique set of features that makes it easier to achieve outstanding sound quality while simplifying operation. Furthermore, the S-32 reduces the need for additional system equipment by integrating dynamic processing, output delay, equalization and more.

PLEASE NOTE:
As with all professional audio products, the performance is only as good as the installation allows. Please take the time to read this manual to best understand how this product should be installed and adjusted for optimal performance. To get started immediately, please see the Installation and Setup Guide on page 26.

Please read this guide carefully to ensure your personal safety as well as the safety of your equipment.

**FEATURES:**

- Eight Automix™ channels with soft-knee compression
- Programmable mute system
- Four-band EQ one featuring patent-pending Mid-Morph™
- Award-winning Feedback Ferret® circuitry
- Twenty-eight balanced XLR mic inputs
- Two stereo channels, each with three sets of switchable inputs
- Inserts on all mono channels
- Direct outputs on all channels
- USB connectivity (Mac and PC )
- Digital processing with Left/Right output featuring delay, EQ and dynamics
- Two additional digital processors—local and remote—featuring delay, EQ and dynamics
- Four monitor outputs
- Two effects buses
- Clip LEDs monitor the entire signal path for clipping
- Variable low cut filter




1 COMPRESSOR THRESHOLD (Automix™ Channels Only)
The eight channels to the right of the Master Section (25-32) have built-in, soft-knee compressors. These are designed to keep levels from getting out of hand by reducing the dynamic range when the signal rises above a threshold set by this control. The CMP lamp (20) located beside the channel's fader illuminates to indicate that the threshold has been crossed and that compression is taking place. To set the threshold, start with the control fully clockwise (off) and turn it counterclockwise until the lamp lights only on occasional signal peaks. If compression is not required, set this control to maximum. Compression is available in Automix and Manual modes.

2 GAIN
This control establishes the nominal operating level for the channel. The input gain can be adjusted over a wide range (60 dB) to compensate for soft voices or very loud drums. To maximize the signal-to-noise ratio, the gain should be set for a proper level with the channel fader set at "0." If the channel's signal present LED rarely lights or the clip LED illuminates, the gain should be readjusted. This is perhaps the most important setting when establishing the overall signal-to-noise of the console; too little pre-amp gain raises the noise floor, while too much gain reduces headroom and may lead to clipping.

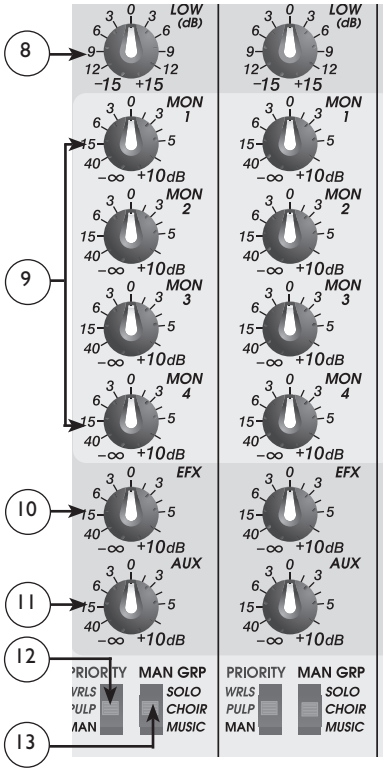
3 LOW CUT
A low-cut filter will reduce handling and stage noise, breathing noises and unwanted low-frequency energy. This control adjusts the cut-off point from 10 Hz (effectively off) to 300 Hz. For best results, begin adjustment with the control fully counterclockwise and increase until the correct point is found.

4 HI EQ
This is a shelving type of active tone control that adjusts treble frequency levels (+/-15 dB at 10 kHz). It is designed to remove noise or add brilliance to the signal, depending on the quality of the source.

5 MID FREQUENCY
This tuning control works in conjunction with the Mid Level (6) and sets its center frequency. The adjustment range is between 100 Hz to 5 kHz.

6 MID LEVEL
The Mid Level control determines the amount of cut or boost of the frequencies set by the MID FREQUENCY control (5). This extra mid-band complements the Mid-Morph EQ (7) and allows additional frequency shaping when more than one mid frequency needs to be modified.

7 MID-MORPH™ EQ
Where most mid range controls work at just one frequency, the Mid-Morph (patent-pending) works at two. When turned counterclockwise, it cuts at 225 Hz to reduce frequencies that muddy the sound. When turned clockwise, it boosts at 4 kHz to add intelligibility to vocals. Either way, improved vocal or instrument definition can be achieved.




8 LOW EQ

This is a shelving type of active tone control that adjusts bass frequency levels (+/ 15 dB at 70 Hz). It will add depth to thin signals or clean up overly thick ones.

9 MONITOR SENDS (1-4)

The Monitor Sends adjust the level of the channel signal added to the individual monitor mixes. They are post-equalization and pre-fader. The center detent is the unity gain (nominal) position. The channel's mute switch mutes these sends.

10 EFFECTS SEND

This adjusts the level of the channel signal (post-equalization, post-fader) added to the effects mix. The signal is sent to the EFX Master Level Control (45), which drives the internal effects processor and the effects output jack on the rear panel. If the internal effects are not needed, this send can be used as an additional output for monitors or external processing. The center detent is the unity gain (nominal) position. The effect sends mute along with the channel Mute.

11 AUX SEND

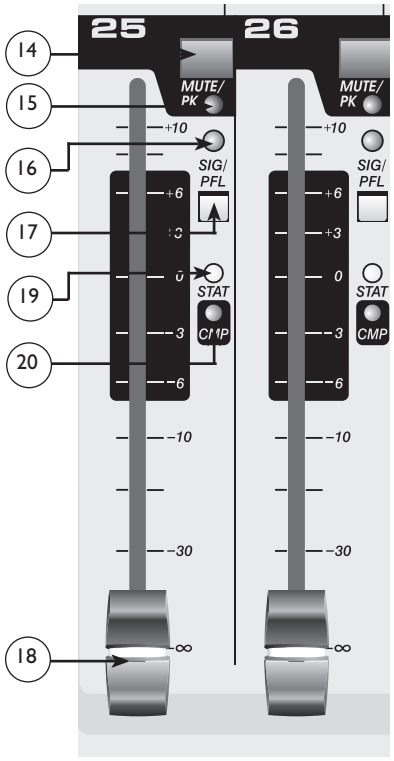
This control sets the level of the channel signal (post-equalization, post-fader) that is added to the AUX bus. This can be used for any application where a post-fader signal is required (external effects, KOSMOS®, AUX-fed subs, etc.) The AUX Send mutes when the channel is muted.

12 PRIORITY ASSIGNMENT (Automix™ Channels Only)

This switch either routes the channel through the Automix bus with two levels of priority or to the manual mix bus selector switch where it can be assigned to the other subgroups. The Wireless and Pulpit positions are Automix assignments, with the Wireless position being the highest priority. The dominance of the channel is determined both by the level of the signal through its channel compared to the others assigned to the Automix group, and by the priority setting of the channel. Setting a microphone to the Wireless position gives it precedence over a fixed microphone set to Pulpit. Using this approach reduces the comb filtering effects that occur when both microphones pick up the same person speaking. When set in the Manual position, the channel is completely removed from the Automix bus and any interaction it would normally have with the automatic mixing system.

13 GROUP ASSIGNMENT (All Channels)

The channel output signal is sent to the submix group selected by this switch. The three groups (Solo, Choir, Music) are identical and have identical specifications – the group labels are typical representations of standard uses and do not imply any differences in functions or features. In the Automix channels (25-32), this switch is only active if the priority switch is set to the Manual mode.




14 MUTE

This button mutes all channel signals, including Group Assignments (13), Monitor Sends (9), Effects Sends(10) and Aux Sends (11), as well as Direct Output (63). In operation, it behaves as a standard mute switch, but in fact it is part of the programmable Mute Group (62) circuitry. If the channel is muted with this button, it will remain muted regardless of any mute group functions until un-muted with this local button. If the channel is muted either locally or by a Mute Group (62), pressing this local mute button will cause it to un-mute. The channel will remain un-muted until muted again by local mute button or another mute group. When programming a Mute Group (62), this switch is used to add or remove the channel from the group being edited.

15 MUTE/CLIP LIGHT

This light normally indicates that the channel signal level is nearing the overload point. It monitors three points: the input gain stage, equalization and post-fader gain. It illuminates at +19 dBu and warns that gain or EQ boost should be reduced. There is roughly 2dB of headroom remaining when it illuminates. If the channel is muted (either locally or by a Mute preset), it lights continuously to indicate that the channel is off. If the Mute Group is being edited, this light will flash to indicate it is part of the group. If the channel has been locally muted (a forced mute), the light will flash at a faster rate.

16 SIGNAL PRESENT/PFL LIGHT

This illuminates when the channel signal exceeds –20d Bu, giving a quick visual indication that audio is present in the channel. This light should blink during normal use. When the PFL button (17) is pressed, it lights continuously to show that the channel has been assigned to the PFL bus where it can be monitored in the headphones.

17 PFL

This control assigns the channel signal to the PFL (Pre-Fader Listen) bus so it can be monitored in the headphones. It provides a method to listen to an input to check its settings even when the channel is muted. The PFL on the two media (stereo) channels is stereo and has the same signals that are sent to the Left/Right mains.

18 FADER

This is the channel output-level control. On the Automix™ channels (25-32), the gain is best adjusted so that feedback will not occur with the fader set at 10, then reduced to provide an adjustment range. Typically, faders being used should be kept in the black area. The optimum setting is the “0” (unity gain) position. Since the EFX (10) and AUX (11) sends receive their signals after this control, it also controls their levels.

19 CHANNEL STATUS (Automix Channels Only)

On a channel assigned to the Automix group, this light indicates that the channel is active and is a dominant Automix channel. An unlit channel status light indicates that the level is being attenuated, not that the channel is off. If the channel has been assigned to a manual group (Solo, Choir, Music), the status light is on continuously, showing that it is unaffected by the Automix circuitry. With no signal on any Automix channel, the status lights will be off.

20 COMPRESSION ACTIVE (Automix Channels Only)

When the level set by the threshold control is exceeded, compression of the signal begins. When the gain reduction exceeds 3 dB, this LED will illuminate. The compressor on these channels is intended to help control the dynamic range when a person speaks loudly. The light should only come on during loud speech. If it is on much of the time, the dynamic range can be unnaturally compressed and the channel will be more prone to feedback in which case the threshold should be raised.

21 STEREO SOURCE SELECT (Stereo Channels Only)
The two stereo channels have input jack selector switches that determine which signal is used for the channel source. Channel 21/22 has three analog options (two RCA, one 1/4"), while channel 23/24 has two analog (RCA) and one digital input from the USB (79) computer connection.

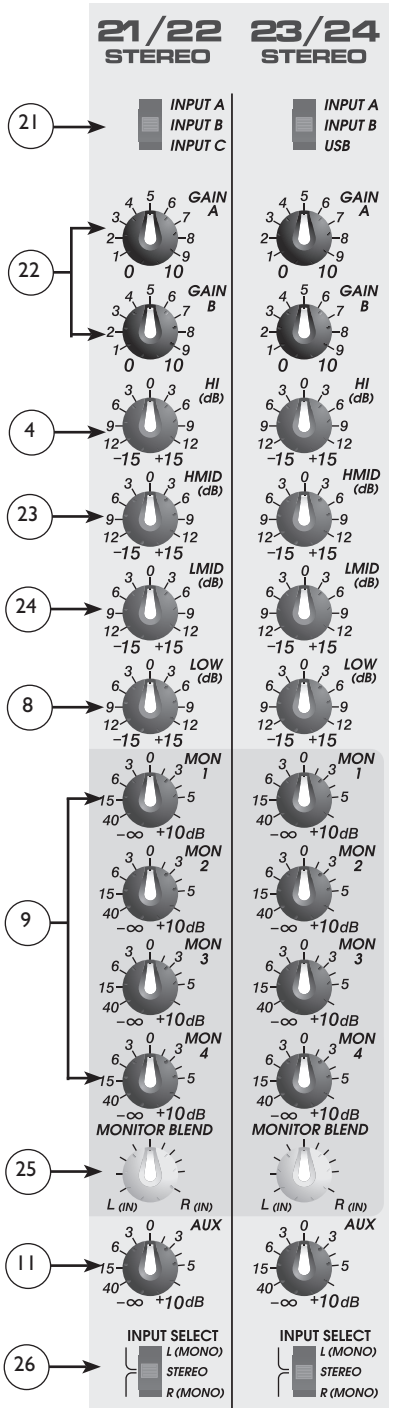
22 GAIN A & B (Stereo Channels Only)
The two stereo channels have two gain controls for their A and B inputs (the third input is unity gain only). With separate gain controls, sources can be level matched in advance, alleviating fader adjustments after changes are made. For example, one input can be preset for a CD input and another for an audio stream from a DVD player or video switcher. The USB input level should be set by adjusting the playback volume of the USB device (computer) connected. A maximum of 10 dB gain is available for each control.

23 HIGH-MID EQ (Stereo Channels Only)
This fixed-frequency equalization provides +/-15 dB adjustment at 4 kHz. It will brighten dark material or reduce the metallic sound of an overly bright source.

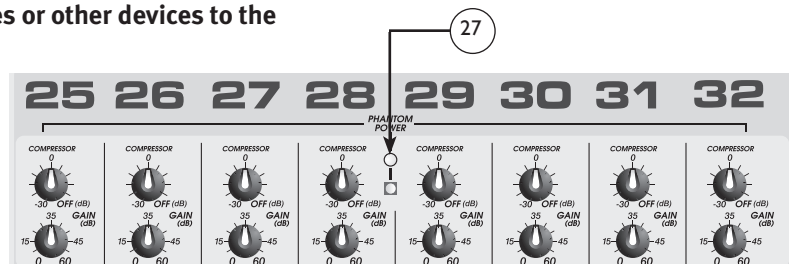
24 LOW-MID EQ (Stereo Channels Only)
This fixed-frequency equalization provides +/-15 dB adjustment at 250Hz. This knob is used to cut the muddiness in your sound.

25 MONITOR BLEND (Stereo Channels Only)
The Monitor Blend control adjusts the mix of the left and right inputs sent to the Monitor Outputs (1-4). Setting this control in the center equally blends the left and right input into the monitors. If a split-accompaniment track is played with vocals on one track, the Monitor Blend controls the mix of vocals added to the monitors to assist the performer(s).

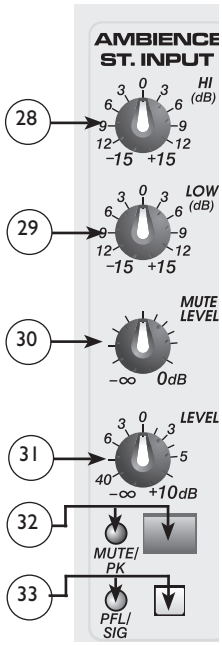
26 INPUT SELECT MODE (Stereo Channels Only)
The inputs to Channels 21/22 and 23/24 can be selected as left (mono), right (mono) or normal stereo. The stereo channels are always assigned to the mains and cannot be assigned to any subgroup. This Input Select Mode switch is specifically included to help when using soundtracks that are split into vocal and accompaniment tracks. The track with the music can be selected and sent to the house, while the Monitor Blend (25) controls the blend of left and right in the monitors.




27 PHANTOM POWER
Phantom Power applies +48 VDC to the input XLR connectors to power microphones that require it. **If Phantom Power is used, do not connect unbalanced dynamic microphones or other devices to the XLR inputs that cannot handle this voltage.** A light indicates when Phantom Power is on. There are three separate banks that have Phantom Power switches: channels 1-10, channels 11-20 and channels 25-32.



## Master Functions - Ambience




28 AMBIENCE HI EQ
This control adjusts the high-frequency equalization of the ambience input signal. It allows a +/- 15 dB adjustment at 10 kHz. The center detent is the flat position.

29 AMBIENCE LOW EQ
This control adjusts the bass-frequency equalization of the ambience input signal. It allows a +/- 15 dB adjustment at 70 Hz. The center detent is the flat position.

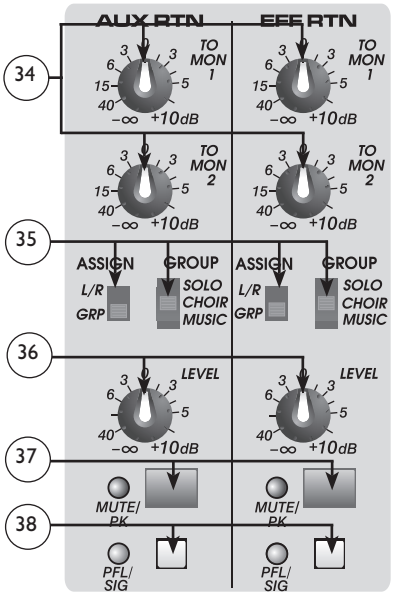
30 AMBIENCE MUTE LEVEL
When the Mute for the ambience input is engaged (either manually or by preset), the ambience output level is attenuated by the amount set by this control. The fully clockwise position has no attenuation, while the counterclockwise position has complete attenuation. This function provides two different levels of ambience. (See Ambience Level information (31).) This is beneficial when more ambience level is desired during congregational singing and less during speaking. Since the Mute can be programmed, it can be used as a two-level preset.

31 AMBIENCE LEVEL
This is the output level control of the ambience signal. Many houses of worship either record, stream to internet or broadcast their services. In order to add audience participation (and perhaps the organ music) to these feeds, the S-32® features a special stereo low-impedance input (with equalization adjustment) designed for this purpose. The signal from these ambience inputs is added to the Record (72), Broadcast (73) and USB (79) outputs with the amount set by this level control. Any ambience added to the Local and Remote (75) outputs also tracks this control, but has additional level adjustment in the digital output processing section. To prevent the potential for feedback, the ambience mic input does not go to the subgroup or main outputs. Ambience direct output is available on the rear panel.

32 AMBIENCE MUTE
As part of the Programmable Mute System (62), this mute actually attenuates the ambience signal by the amount set by the Ambience Mute Level control (30). This mute LED shows both the mute and peak status, the same as the other mute indicators.

33 AMBIENCE PFL/SIGNAL
This button assigns the pre-fader ambience signal to the PFL bus (in stereo) so that signal quality and balance can be checked. The dual-purpose LED flickers when signal is present and illuminates fully when PFL has been activated.

## Master Functions - Aux & Effects Returns




34 SEND TO MONITOR (1 & 2)
This sends the return signal to the monitor. It is not affected by the Level control (36), but is affected by the Mute (37).

35 ASSIGN/GROUP
The signal can be sent to the Left/Right mains or to one of the subgroups. To send to a group, set the ASSIGN switch to GRP, then choose the group with the GROUP switch. When set to L/R, the GROUP switch does not function.

36 RETURN LEVEL
This knob controls the output level for the return signal, with the output group set by the corresponding assignment switches. The center position is the nominal (unity gain) setting. There are differences between the Aux Return and the Effects Return. The Aux Return is a stereo input that can either be used as an additional line input or as a return for an external effects unit, if one is used. (It is not necessarily associated with the Aux Send signal (77).) The Effects Return is the output of the internal stereo effects processor.

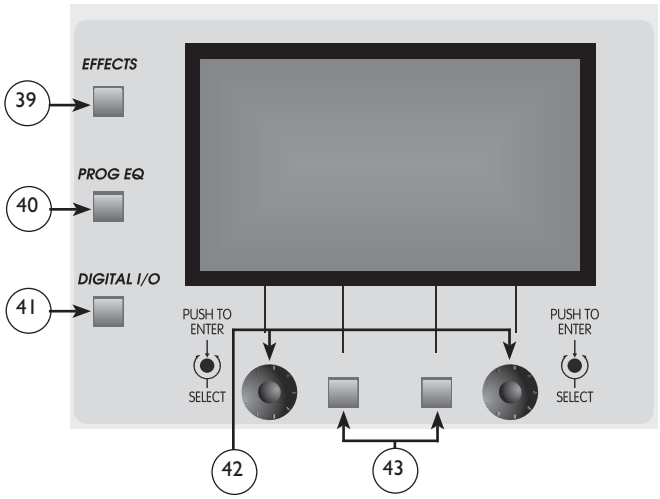
37 RETURN MUTE
This button mutes both the assigned signals and the Monitor Sends. It is part of the Mute Programming circuitry and functions the same as the other mutes on the console. The LED indicates the mute status and lights if the level is within 2 dB of maximum.

38 RETURN PFL/SIGNAL
Assigns the Return Signal (post-level control) to the PFL bus (in stereo) so that signal quality and balance can be checked. The VU meter can also be used when to check output level PFL is engaged. The dual-purpose LED flickers when a signal is present and illuminates fully when the PFL has been activated (solid).

## Master Functions - Digital Processing

39 EFFECTS
This switch brings up the effects section of the digital processor, where effects are set up and edited. This is described in the Digital Processing Arena section of the processor guide on page 15.

40 PROGRAM EQ
This switch brings up the menu for output processing adjustment. Included are output equalization, delay, and dynamics for the main Left/Right (73), Local and Remote (75) and USB (79) outputs. This is described in the program EQ section of the processor guide on page 16.




41 DIGITAL IN/OUT
This switch brings up the menu for utility applications. This function will be necessary for any firmware updates, screen adjustments or passwording. This is described in the Digital Processing Arena section on page 17.

42 SELECT/ENTER CONTROLS
These are two select controls with push-button switches. These interface with the menus on the screen.

43 SOFT KEYS
These two buttons are used by the software for various functions. Text on the screen above these respective switches indicates available button options. (In some instances features may be disabled.)

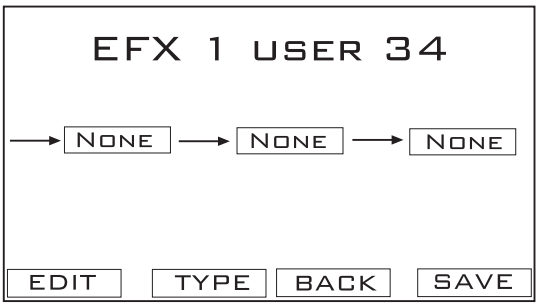
## Digital Processing Arena

This is a brief overview of the digital processing capabilities of your new S-32® mixer. While you can expect incredible results following this guide, mastering the art of digital processing will be achieved through experimentation. Keep in mind that until you confirm your changes by pressing "save," no alterations have been made to the presets. Peavey engineers programmed your mixer with a variety of the most commonly used presets, which are ready to use right out of the box. However, your S-32 mixer will only reach its full digital processing potential through your acquired expertise. Review the process below and begin exploring the digital mixing world beyond factory presets.

**Effects Screen**

When you power up your S-32 mixer, the Sanctuary Series™ dove logo will appear and remain on the LCD until you make a processing selection. Your S-32 mixer features a variety of commonly used factory presets and plenty of user-defined, customizable presets. Each preset effect may contain 1-3 effects. The LCD display contains information for the current, active preset. The active preset shown on the LCD is assigned to any channel(s) using EFX Aux (10). The screen displays the preset number, the title for that individual effect and which effects are included in that preset (compressor, reverb, delay, etc.). To change the preset, use the corresponding Select/Enter Control (42). When you reach the desired preset, you will be prompted to select a new preset by pressing the Effects switch (39). An asterisk will appear beside any preset number that has been edited but not saved. Once a new preset has been selected, you may return to the previous preset by pressing the software encoder (Recall). To edit a preset, press the software switch labeled Edit and follow the on-screen directions, which allow individual parameter changes. For example, you may wish to increase the bass and decrease the amount of reverb on the "Children's Choir" preset (preset 9). The "lib" (library) is a helpful place to start. Peavey has pre-programmed your S-32 mixer with a library of commonly used effects settings (Delay, Reverb, De-esser, etc.). You may choose to use a library effect as programmed or tweak the parameters to your own personal preference.

**IMPORTANT:** When a signal passes through a digital effects processor, a short delay results. When this same signal returns to the mixer and combines with the main output, the small delay difference results in a comb filter. (Short-changing delays are the basis of "wah-wah" effects.) To prevent the comb-filter effect, increase the delay time simply by including an effect block such as reverb or delay.



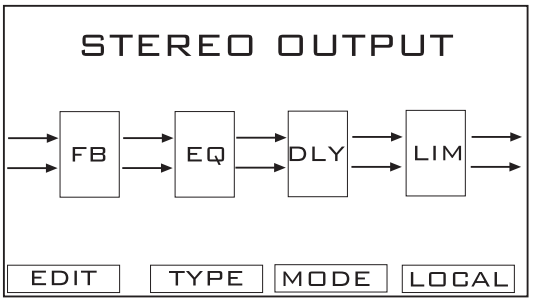

If you make a mistake, you do not have to start over. The "undo" button will revert the last change to its original setting, much like the "undo" command in a word processor. To make further refinements to any user-defined preset, you have two choices: press the "back" button and start completely over, or simply use the soft knobs (42-43) to return to the individual effect within a preset. Remember, factory presets cannot be altered by the user. If you choose to adjust or build on a factory preset (which we encourage you to do), your saved settings will be automatically directed to the next, unused, customizable preset.

WARNING: When user-defined, customizable presets are saved, they will automatically replace the current settings for that preset UNLESS you assign a new preset number. If you overwrite the originally saved preset settings, the old settings are no longer retrievable.

QUICK TIP: From anywhere within the digital arena, you can return to the main effects screen simply by pressing the Effects Button (39).

**Program EQ**

Pressing the Program EQ button (40) allows users to adjust the main (L-R), local and remote signal output from the mixer. The main (L-R) output can be configured in stereo, dual-mono or subwoofer output mode. Users can create and save presets for all three effects combined. Your mixer is also equipped with "neutral" presets, allowing an unadjusted (zero) starting place for creating a new preset.




By default, the last used output menu appears when the Program EQ button (40) is pressed. If you prefer to work in different a mode, return to the main output processing screen by pressing the "mode" soft-knob choice.

**Stereo Output Mode**

The Stereo Output option features four customizable output effects: Feedback Ferret®, EQ, Delay and Limiter. To edit an effect, press the Select/Enter Control (42) and then enter the edit mode using Soft Knobs (42-43). To save a new preset (save current) or to use a previously saved setting (load saved), enter the "lib" (library) mode using the soft knobs (42-43).

Remember, in Stereo mode these parameter adjustments are made to both the left and right channels equally.

**Dual Mono Output Mode**

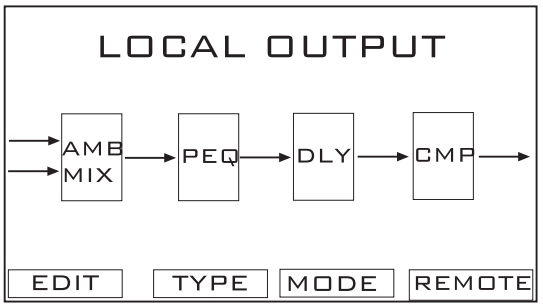
The Dual Mono Output mode functions exactly like the Stereo mode except that parameters may be adjusted independently for left and right channels. To save a new preset (save current) or to use a previously saved setting (load saved), enter the "lib" (library) mode using the Soft Knobs (42-43).

**Subwoofer Output Mode**

This mode features an internal crossover filter that allows you to adjust parameters of frequency levels (high frequencies feed to the left channel and low frequencies feed to the right). To save a new preset (save current) or to use a previously saved setting (load saved), enter the "lib" (library) mode using the Soft Knobs (42-43).

**Local and Remote Output Mode**

Users can access both the Local and Remote output from any main output screen. Enter the Local output using the Soft Knobs (42-43) and make your adjustments to the independently controlled Parametric EQ, Delay, Dynamics or Ambience Mix. Press the same soft knob to enter the Remote Output mode to make new adjustments. Each adjustment to Local or Remote output is independent from the other. Return to the main output mode by pressing the same Soft Knob again.



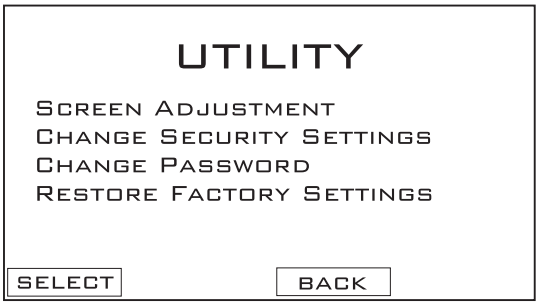
IMPORTANT: The Remote output is designed to provide people in other rooms with the same auditory experience as worshipers involved in the service. The Local output is designed to provide the same experience for people in far reaches of the room. For example, people in the nursery would greatly benefit from the Remote output, while people under a balcony or in an overflow area would most benefit from the Local output.

While you can make adjustments to parametric EQ, Delay and Dynamics, Ambience Mix is special because it brings nuances of each performance to those who are not at the center of the action. Ambience Mix is everything you hear that is not processed through the sound system, such as congregational singing, responses, acoustic instruments and laughter. Often, people in an attached overflow room will not need the Ambience Mix because they can see and hear the "extras." Nursery workers, however, will appreciate the complete audio experience provided by the Ambience Mix (AMB MIX) feature.

**Local and Remote Auto Setup**
Auto Setup takes the guesswork out of setting delays for remote and local outputs. For example, place a mic in the overflow area, mute all other channels and enter the Auto Setup mode from the delay feature in the Local output. A series of "pings" will sound, allowing your mixer to automatically determine the amount of delay needed. The "pings" will continue until you exit the Auto Setup mode by saving or canceling. Users can fine-tune the amount of delay to their personal taste using the Soft knobs (42-43) .

WARNING: Do not enter the Auto Setup mode during a performance. Your mixer will not pass any sound other than the "ping." In the event you accidentally enter the setup during a performance, a warning screen will appear allowing you to exit the Auto Setup prior to sound cutoff.

**Digital I/O**
Pressing the Digital I/O (41) allows user access to the Utility menu options.




**Utility Menu Options**
Entering the Utility function allows users to adjust screen contrast, assign two levels of user accessibility (security), change or access password, or restore the unit to the original factory presets.

To accommodate low lighting situations, LCD viewing may be adjusted simply by entering the "view angle" option from the main Utility screen using Soft Knobs (42-43) to make all adjustments.

To accommodate multiple users, your mixer is equipped with a two-level security system. The main mixer-operator user controls who can do what with the digital effects board, granting passwords to other users for specific processing rights such as disabling effects edit, disabling output edit, etc. Security settings can be adjusted simply by entering the security choice option from the main Utility screen using the Soft Knobs (42-43) to make all adjustments.

MASTER USER TIP: Peavey® highly recommends that you set a security password. Allowing someone else to operate your unsecured S-32® mixer grants that user complete access to change all of your settings. Security passwords protect the time you spent to get your presets just right while allowing you to safely provide digital processing access for even the most inexperienced users.

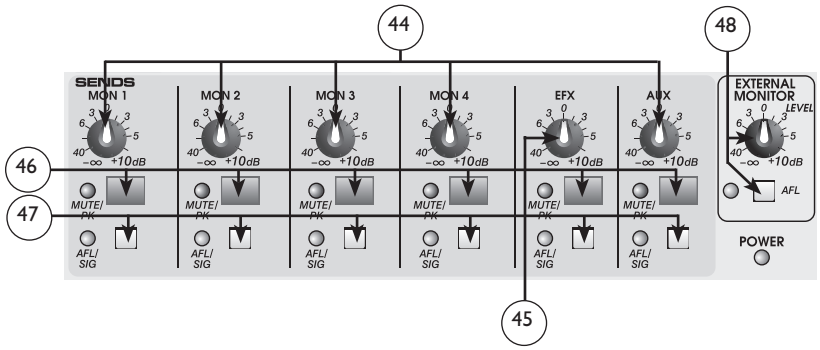
In the event you wish to change your password, press the "change password" button from the main Digital I/O menu (41) and follow on-screen directions.

IMPORTANT: Write and store your password in a safe place. No one other than you should have access to

this password; loss of your password could result in your inability to change settings.
CAUTION: Restoring the factory settings option resets your mixer's presets, reformatting factory presets and erasing all other user presets. (This option is handy when your venue has permanently changed and all-new presets are required.) Once confirmed, the presets are not retrievable and will be permanently lost. Should you select this option in error, a warning screen allows you to cancel the procedure.

**Firmware Updates**
Necessary files can be downloaded from the Internet and installed using your computer. To install a firmware update, connect your mixer to a computer via the USB port and hold down the left Select/Enter Control (42) while powering up your mixer. Follow on-screen prompts to complete your process. If the installation is successful, your mixer will automatically restart. If unsuccessful, or to exit the Update mode, press the Power button to restart.

## Master Functions - Sends



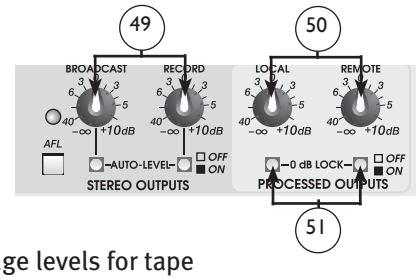

44 MONITOR AND AUX MASTER
This control (in conjunction with the individual Channel Send controls (9&11)) sets the output level of the corresponding Monitor or Aux output. The center is the nominal (unity gain) position. There is 10 dB of gain available.

45 EFFECTS MASTER LEVEL
This control (in conjunction with the individual Channel Send controls (10)) sets the level of the Effects Output Jack (76) and the amount sent to the digital signal processor for internal effects. The center is the nominal (unity gain) position. There is 10 dB of gain available.

46 MUTE
This button mutes the output. As part of the mute programming circuitry, it functions the same as the other mutes on the console. The LED indicates the mute status, and lights if the level is within 2 dB of maximum.

47 AFL/SIGNAL
This button assigns the Post Fader Signal to the PFL bus so that it can be monitored. The dual-purpose LED flickers when signal is present and illuminates fully when the AFL has been activated.

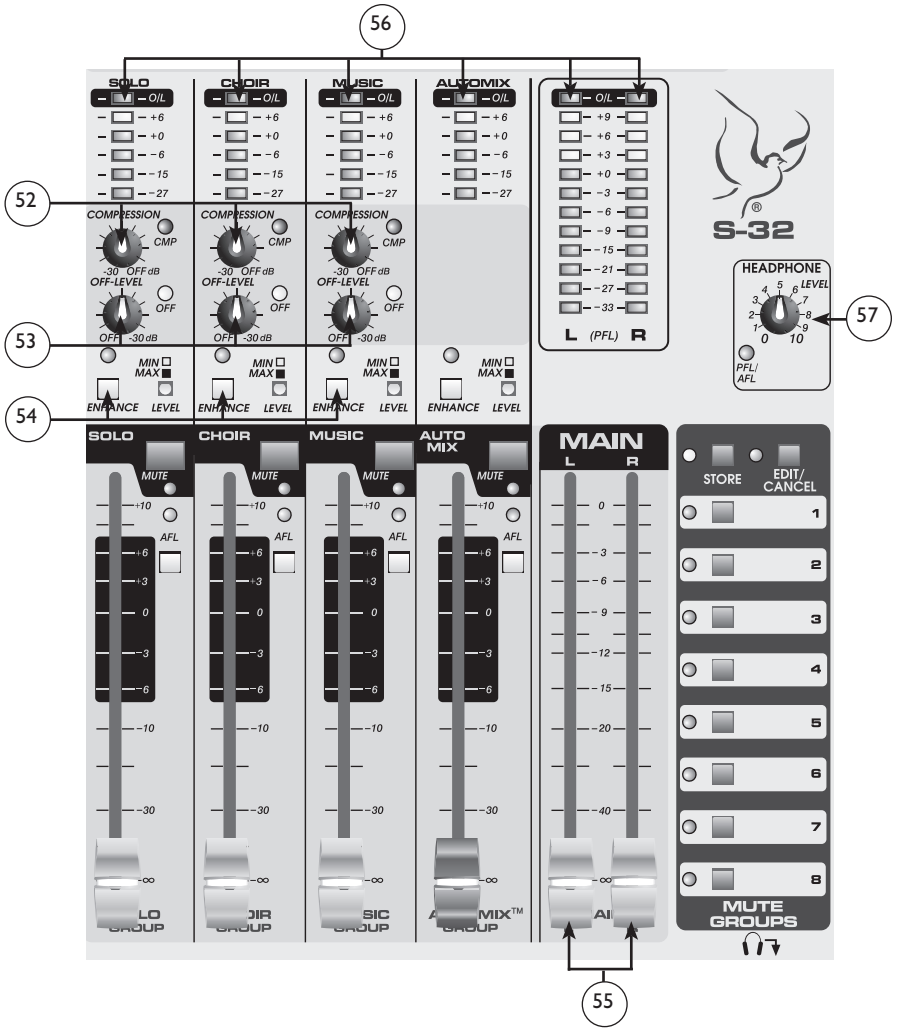
48 EXTERNAL MONITOR LEVEL/AFL
This stereo input feeds only the headphones and is provided to monitor an over-the-air receiver or other feed. The AFL switch (47) turns it on.




49 BROADCAST AND RECORD OUTPUT LEVELS WITH AUTO-LEVEL
These are the Master Output controls for the stereo Broadcast and Record outputs. (The Broadcast output can be used for any application, not just for radio or television feeds.) The Record output is unbalanced, while the Broadcast output is balanced and has AFL monitoring. The signal can either be unprocessed or leveled with an Automatic Level Control (AUTO-LEVEL) circuit. The AUTO-LEVEL will keep the levels within a narrow dynamic range to maintain higher average levels for tape or hearing-assisted feeds. The AUTO-LEVEL circuit is enabled by depressing the concealed switches using a small tool.

50 LOCAL AND REMOTE OUTPUTS
These outputs are special digitally processed outputs, with their individual settings made in the Program EQ (40) section of the digital signal processor. Delay, equalization and dynamic processing can be added. The Local output differs from the Remote output in that its output tracks the position of the Left Master Fader. This is useful for any output that needs to remain proportional to the main outputs, such as an under-balcony, narthex or subwoofer feed. Because most adjustments are made by the processor, only a level control and a 0 dB Lock switch (51) are provided.

51 0 dB LOCK
The Local and Remote outputs (75) may be used for feeds that shouldn't be accidentally adjusted (such as an under-balcony feed). These concealed switches assist in preventing adjustment of these controls if they are used for critical sends. When engaged, the Volume controls are disconnected and the level is preset at unity gain, which is the equivalent of the 12 o'clock control position.




52 COMPRESSION THRESHOLD
Transparent, soft-knee, variable-ratio compression is provided for the Solo, Choir and Music groups. Compression can smooth out dynamic changes due to sudden (and usually unexpected) increases in level. The threshold is adjustable from off (greater than +20 dBu) to –30 dBu and sets the amount. The CMP LED illuminates when the group's attenuation is greater than 3 dB. This control should be set so that the CMP light only illuminates at peaks and is not consistently on. To disable compression, set the control to maximum (fully clockwise).

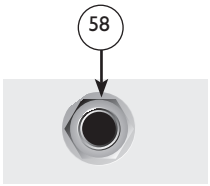
53 OFF-LEVEL THRESHOLD
This knob is part of the dynamics control for the Solo, Choir and Music groups and is the off-level (downward expansion) setting. This reduces noise by automatically lowering the signal level when it drops beneath the set threshold. It not only cleans up background noise, but also reduces feedback problems by attenuating microphones assigned to this group when there is no activity. The OFF light indicates that the group is being attenuated. To disable noise reduction, set the control to minimum (fully counterclockwise).

54 VOCAL ENHANCE
The circuitry of the Vocal Enhance has been designed to improve clarity and definition. It brightens the signal using simulated tube harmonics. The active frequency range has been chosen to work well with speech. The amount is determined by a concealed preset switch (MIN up, MAX down). An overly bright signal may sound harsh with the Vocal Enhance engaged.

55 MAIN LEFT AND RIGHT FADERS
These are the Master level controls. If the configuration selector is set to dual mono, both have the same signal (a sum of left and right signals) and can be used as area (zone) outputs. These controls are best operated in the –6 dB to 0 dB position. The left fader also controls the level sent to the Local output so that it can be used to track the main output for a subwoofer or under-balcony output.

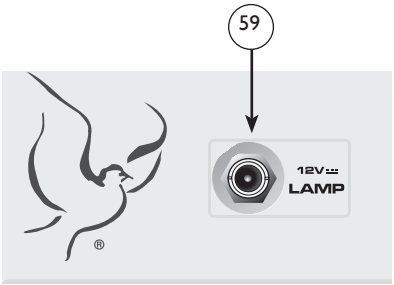
56 METER ARRAYS
These six meters give a visual indication of Group levels and Main Output levels. The top LED of each meter is a special, dual-purpose indicator that not only lights when the output approaches clipping, but also when the associated bus is close to overloading. When it lights before the LEDs beneath it, the bus is being overloaded and the summed level from the channels is too high. The o dB meter reference level corresponds to +4 dBu. In normal operation, the channel gains should be set so that the meters light near o dB at loud points in the service. The output trim attenuators on the rear panel should then be adjusted for the desired house volume, providing the best signal-to-noise ratio.

57 HEADPHONE LEVEL
This level sets the volume of the headphones. When a PFL or AFL button is actived, the LED lights and the headphone source changes from the default main outputs to the signal that has been assigned to the PFL/AFL bus.




58 HEADPHONE OUTPUT (Front Panel)
This stereo jack (TRS) provides drive for the headphones. The level is set by the headphone level control. Tip = Left, Ring = Right, Shield = Ground.

59 BNC LAMP CONNECTOR
The two BNC-type lamp connectors are designed for 12 V flexible lamps. These supply +12 V DC (shield is ground) and can supply a maximum of o.5 A to each connector. This jack supports halogen lamps.



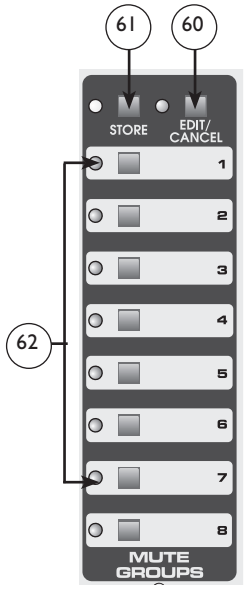

## Master Functions - Programmable Mutes

*Mute Group Mode: There are two modes of operation in the Digital Mute Group system. In the default mode, each of the Mute groups can be individually activated and deactivated. This mode works well for muting groups of microphones that share a common function. For example, the choir mics can all be muted and unmuted as a group. The other mode of operation is the Single Mute Scene mode, where only one Mute button can be active at a time. This mode of operation works well for creating scenes that are either for a particular service or a specific part of the service. The scene would then unmute all of the mics needed at one time.*

*Changing Mute Group Mode: To change the Mute mode, start by turning off the console.*
*For the Multiple Mute Group mode, press and hold the store and "1" button and turn the mixer on.*
*For the Single Mute Scene mode, press and hold the store and "2" button and turn the mixer on.*

60 MUTE GROUP EDIT/CANCEL
This switch is used when programming the mute presets. To edit a scene, first press this switch. The Mute Preset lights flash until you select the preset you wish to edit. At that time, the selected Mute Scene Preset light will flash along with the channel mutes that are currently assigned to that preset. Any channels that are locally muted and are part of that group will also flash but at a faster rate. (This is useful when you want to use the edit function to preview members of a Mute group. It also warns you of channels that will not unmute.) To turn on or off any mutes that need to be added or removed from the preset, press the Store button (61), then push the button for the Preset (62) where you wish to store this

setup. To cancel a Mute Program made in error, simply press the Edit switch again to cancel the action instead of storing the changes.



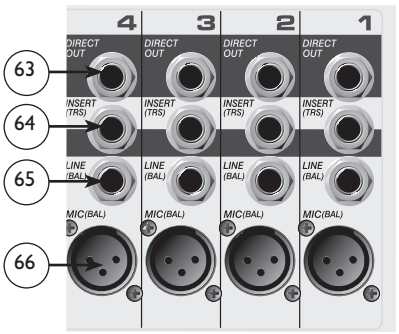

61 MUTE GROUP STORE

Once a Mute preset has been edited, store it by pressing this switch. The preset lights will flash, with the one currently being edited flashing at a faster rate. Press the button of the preset that will receive the new setup. To cancel a store, press the Edit/Cancel button instead of the preset button. Alternatively, pressing the Store Button (61) without first pressing the Edit Button (60) allows you to store the mutes currently engaged.

62 PRESETS

Each preset holds a stored mute scene. Any mute on the console can be part of a preset. When a preset button is pressed, the channels assigned to that scene will mute. When pressed again to disengage the Mute Group (62), those channels that are part of that group will unmute unless the channel is locally muted or is muted as part of another Mute Group. The Mute buttons above the subgroup faders are also Mute Groups. Muting these controls mutes all of the channels assigned to that group. Depending on the Mute Group mode, the eight Mute Group buttons can each be muted or unmuted independently. Pressing a Mute Group button will cancel the previous selection if in single Mute Scene mode. Mute Scenes are created using the Edit/Cancel (60) and Store (61) functions (see above).

## Input and Output Jacks

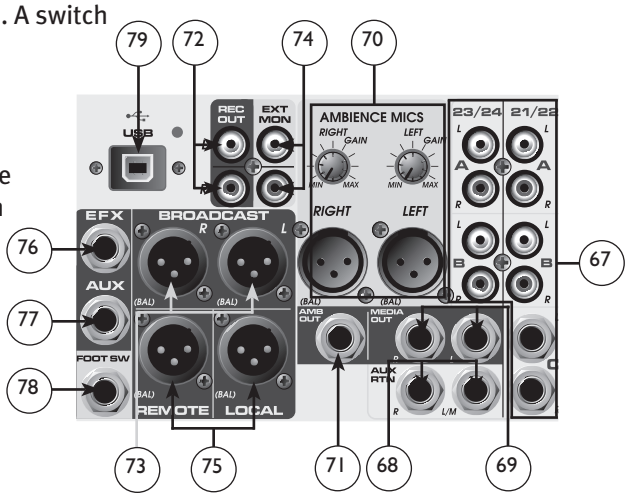



63 DIRECT OUT

This output provides individual channel signals that can be sent to a multitrack recording system or another mixing console. These signals are often used for a broadcast, TV mix or connection to a personal monitor mixing system. The signal is post EQ and post mute but pre fader. This is an unbalanced connection (Tip=signal, Sleeve=ground) connection.

64 CHANNEL INSERT

Each channel has a TRS insert for adding external processing such as compression, gating, equalization or an in-line effect. The insert point is located after the mic preamp and the low-cut filter but before the EQ. The tip has the send signal, the ring has the return signal and the sleeve is ground. A switch in the jack bypasses it until a plug is inserted.




65 LINE INPUT

The Line Input is a 1/4" balanced (TRS) 10 k ohm input. The tip is the positive input, which should be used for unbalanced inputs. It has 20 dB less gain than the XLR input and does not have Phantom Power (27) available. The Mic and Line inputs should not be used simultaneously.

66 MIC INPUT

The Mic Input is an XLR balanced input optimized for a microphone or other low-impedance source. Pin 2 is the positive input. Because of the wide range of gain adjustment, signal levels up to +20 dBu can be accommodated.

67 STEREO CHANNEL INPUTS

Channel 21/22 is a stereo channel with three sets of input jacks: two RCA connectors and one set of 1/4" jacks. Channel 23/24 has two selectable RCA inputs in addition to the built-in USB sound card.

68 AUX RETURN INPUT

The Aux Return Input is a 1/4" stereo unbalanced input configured as Left/Mono and Right. They are high-impedance inputs for the Aux Return and can be used for any line input source.

69 MEDIA OUTPUT

These jacks have the direct output signals of a mix of the two stereo media channels which are useful for in-ear monitor feeds or other applications where a direct signal from the stereo channels is needed.

70 AMBIENCE MIC INPUTS WITH GAIN TRIM

Two low-impedance, ambience mic inputs (configured as a stereo pair) are for background and congregation pickup. The stereo imaging (balance) is adjusted with the Left and Right Gain controls. These inputs have +48 V Phantom Power available at all times to power condenser mics; unbalanced mics that cannot handle this voltage should **not** be used. 60 dB of mic gain is available.

71 AMBIENCE OUTPUT
This is a mono direct output from the ambience mics that can be used for in-ear monitoring systems or other situations where the direct ambience signal is needed.

72 RECORD OUT
This RCA unbalanced stereo output feeds recording equipment, but can be used for any application. The Record Output signal comes from the Record Output control and includes the stereo ambience signal.

73 BROADCAST OUT
This is the balanced output pair of the Broadcast output, which can be used for radio feeds, video feeds and similar needs. The Broadcast signal includes the stereo ambient signal.

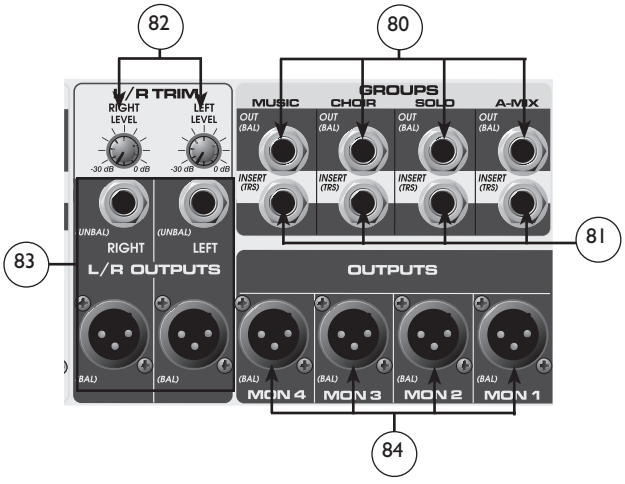
74 EXTERNAL INPUT
This unbalanced stereo input is especially useful for monitoring an off-air broadcast (from a tuner, etc.) in the headphones only. Any source that needs direct headphone monitoring can be used as the input source.

75 LOCAL AND REMOTE OUTPUTS
These XLR balanced outputs are for the local and remote outputs. The Local output tracks the left master fader, while the Remote output remains independent. These outputs are digitally processed.

76 EFFECTS OUT
Effects Out is a TRS impedance-balanced output of the dry signal that is also sent to the internal effects processor. It can be used to drive an external effects unit or as an additional post-fader output. If used as an additional output, be sure to mute the internal effects processor.

77 AUX OUT
Aux Out is a TRS impedance-balanced output from the AUX bus with the level set by the AUX master (44) output level control.

78 FOOTSWITCH
The footswitch is used for the digital processor. It is a standard mono jack that connects to a normally open, SPST momentary switch that is used by the effects processor for bypass, setting the time for tap delays and other functions. Do not apply audio or voltage to this jack, or damage could result.




79 USB
Connect a computer to the mixer through this port. It will appear as a generic sound card to the computer and does not require special drivers to use on PC or Mac. It supports two-way communication by receiving digital audio from the computer (which is routed to channels 23/24) and sending a mix of the Left/Right and Ambience signals to the computer (see the digital processor functions). This can be used for digital recording, streaming audio to the Internet or for connecting a computer (with appropriate software) as an audio-analysis tool.

80 GROUP DIRECT OUT
This is a TRS impedance-balanced, pre-fader direct subgroup output. This signal includes dynamics processing and vocal enhancement if active. This output can be used for in-ear monitoring systems or recording.

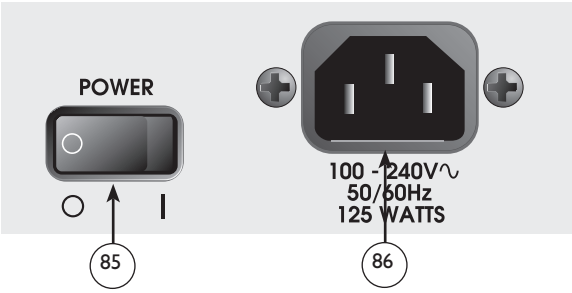
81 GROUP INSERT
Each subgroup has a TRS insert for adding external equalization or custom effects. This insert is positioned electrically before the internal compression and enhancement circuitry. The tip has the send signal, the ring has the return signal and the sleeve is ground. A switch in the jack bypasses it until a plug is inserted.

82 L/RTRIM
These controls are attenuators on the main L/R outputs, which are provided to match the nominal operating levels of the mixer to the power amplifier inputs they will adjust (no attenuation and 30dB attenuation).

83 L/R OUTPUTS
These outputs are the 1/4" unbalanced and XLR balanced outputs of the Left and Right mixes. The output level is set by the master Left and Right faders and the L/RTrim control (81). The nominal levels are +4 dBu with the L/R trim set at "0."

84 MONITOR SENDS
These XLR balanced outputs of the monitor mix are designed to feed an external monitor amplifier. The output level is set by the individual channel's Monitor Send controls and by the Master Monitor Fader.

85 POWER SWITCH
Depressing the power switch supplies power to the unit.




86 AC MAINS INPUT
Connect the line cord to this connector to provide power to the unit. This mixer is designed to operate anywhere in the world, accepting line voltage between 100 V to 240 V at a frequency of 50 to 60 Hz. Use the appropriate line cord for your location.

**Never remove or cut the ground pin of the line cord plug. The console is supplied with a properly rated line cord. If lost or damaged, replace this cord with one of the proper rating.**

**NOTE FOR U.K. ONLY:**
If the colors of the wires in the mains lead of this unit do not correspond with the colored markings identifying terminals in your plug, proceed as follows: (1) The wire that is colored green and yellow must be connected to the terminal marked by the letter E or by the Earth symbol, or colored green or green and yellow. (2) The wire that is colored blue must be connected to the terminal that is marked with the letter N or colored black. (3) The wire that is colored brown must be connected to the terminal that is marked with the letter L or colored red.

# INSTALLATION & SETUP

## 3 Easy Steps to Heavenly Sound with the S-32® Console Mixer

NOTE: As with all professional audio products, the performance is only as good as the installation allows. Please take time to read this manual to best understand how this product should be installed and adjusted for optimal performance.

The S-32 has an extensive and impressive list of features and functions designed to make achieving good sound for worship as easy as possible. To reach this goal, please carefully read and follow the planning, installation and setup procedure described, even if you are experienced with sound-system setup. Once installation is complete, you can proceed to console setup. It will take a bit of time to complete the full procedure, but you will be rewarded with better sound and easier operation. Because many mixer controls affect other settings, this procedure is designed to help you zero in on proper settings. Ultimately, it is virtually impossible to arrive at settings that never change. The goal here to get controls set as close as possible and then make little adjustments along the way as needed. Periodically, you may need to return to this guide and repeat the setup procedure.

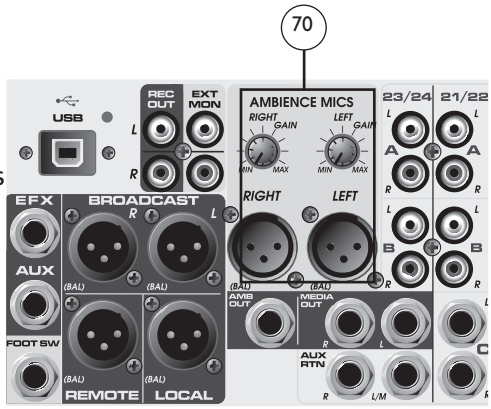
To help with the setup process, we've also included notes explaining the goals and the underlying reasons for many of the procedures.

A chain is only as strong as its weakest link. Although the analogy is an old one, it still applies here. Good sound starts with the microphone and ends with the speakers in the room. Each element plays an important role in achieving good sound, and even the best equipment may not achieve the desired result if improperly installed or used.

**Inputs on the S-32® are designed for differing functions. Before starting the installation, plan what will be connected to each input and output.**

The eight channels to the right of the master section are designed for your most important sources. The Automix™ function on these channels is designed primarily for spoken word (pulpit, pastor's wireless, drama mics, etc.) In the manual position, these channels work well for solo vocal and instrument application where individual compression is an advantage. If the Automix priority switch is set to "Wireless," it gives the channel a higher priority than those set to pulpit. The subgroup assignment switches become active only when Manual mode is selected.

In addition to the Automix group, the S-32 has three buses that allow mics to be grouped for subgroup level control and application of noise reduction and compression. There is no electrical difference between these groups other than labeling. To make the mixing task easier, try to group mics together on adjacent inputs that will be used together and assign them to the same bus. Singing mics, particularly handheld mics, should be assigned to the SOLO or CHOIR groups. Instruments are best routed to the MUSIC group.




Stereo Ambient Microphone inputs (70) can add sound from the room (congregation singing and response, organ, etc.) to the REC (recording) and AUX (auxiliary) outputs. The addition of some ambient sound can enhance the recording, broadcast or sound to other parts of the building. There are many things to consider when placing these microphones. Position them so they pick up a minimal amount of the sound from the main speaker system. Also, keep them away from air conditioning and heating vents. Work to maximize the pickup of the congregation and any instruments that do not go through the sound system. If you only install one ambience microphone, wire the mic to the two Ambience Mic inputs in parallel.

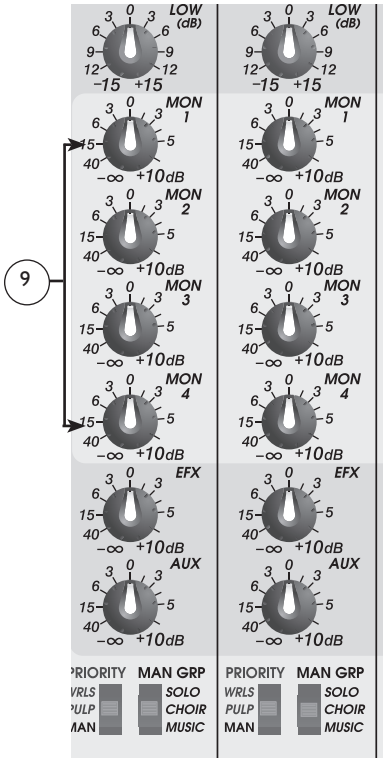
Inputs 21/22 and 23/24 are designed for line-level signals only. Use these inputs to connect sources such as CD players, tape players, audio from video sources and audio from computer via USB. These inputs are not affected by the SOLO, CHOIR or MUSIC group controls. Each stereo channel has three sets of inputs, two of which have independent gain adjustments. If all three inputs are used, first, set the faders for the level of the C input (the USB input on channel 23/24). Next adjust the gains for the A and B inputs to match the level of C. Then, when the input is changed, the volume change will be minimal.

**Stereo or mono master operation**

The S-32 can be used with stereo or monaural sound systems. If you plan on stereo operation, be sure that the left and right speaker systems can each cover the entire congregation area. If mono operation is selected, then the Left and Right main outputs can be used as independent output sends. When operated in mono mode, it is recommended that the Left

output be used for the main sound system because this control also adjusts the "Local" output. In mono mode, the "Right" output could be used for overflow seating.

**Monitor systems: the good, the bad, and the ugly**
Monitor systems can be the best part of the sound system, but they can also be the worst. Great care and discipline is required in the setup and adjustment of the monitor system so that it is an asset. A good monitor system allows musicians and singers to perform together by enabling them to clearly hear themselves and/or others. It may also enable the choir and other service participants to better hear and participate in the worship service.




By contrast, a poorly designed or adjusted monitor system can make it difficult to hear what is needed by including too much information or by emphasizing too much of the wrong audio. In addition, as the volume of the monitor systems increase, they can overwhelm the main sound system and make the overall sound unintelligible. Because they are another parallel sound system, monitor speakers add to the potential for acoustic feedback.

The S-32® has four monitor sends, enabling it to provide four different mixes for the platform, choir or musicians with only the material that each group needs to hear. These monitor signals are post EQ, prefader. Direct outputs from the ambience mics, the stereo channels, the mono channels and every subgroup are available for use of personal monitor mix systems.

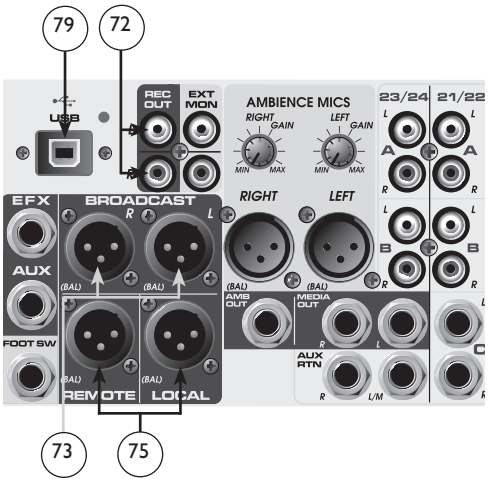
## *The key things to remember about monitors:*

- Get the sound to the people as directly as possible. (Running everything through speakers 30 feet away is difficult and adds more "noise" to the room, but this can work for applications like voice foldback to the choir.)
- Try to keep sound from the monitors out of the microphones. Speakers directed into the rear of directional mics can help. (This can be difficult, but do the best you can.)
- Minimize the need for monitors by careful positioning of people and instruments.
- Start with a good mix on the main sound system and add only the necessary mics to the monitors.
- Never run choir microphones back into the monitors.
- Try to keep the levels low.

## Other outputs

*LOCAL (75) output.* This processed output can be used for subwoofer, under-balcony, narthex, cry-room or other feeds that must track the main output (the Left Master Fader adjusts this output). Delay, compression and equalization can be added in the digital control screen. The ambience mic signal can be added if desired.

*REMOTE (75) output.* This is another processed output with the same options as the Local output, except that it is not affected by the Main Output Master Faders.




*RECORD (72) output.* This unbalanced output is a stereo output intended for recording. A switch is provided to engage the AUTO-LEVEL circuit to reduce dynamic range and improve the average levels. The ambience signal is included in this output.

*BROADCAST (73) output.* This balanced output is designed to be used as a stereo broadcast feed, but can also be used for other purposes. A switch is provided to engage the AUTO-LEVEL circuit to reduce dynamic range. The ambience signal is included in this output. For off-air monitoring, connect the monitoring receiver outputs to the external monitor inputs and listen through headphones (AFL must be engaged).

NOTE: AUTO-LEVEL reduces the variation in volume between loud and soft. Although the variation in volume (dynamic range) is an important part of the service, it can make listening in other rooms, the nursery, cry room, narthex, at home or in the car more difficult. The AUTO-LEVEL automatically reduces the dynamic range to make listening in these environments easier.

*USB (79) output.* This standard USB port supplies the computer with the left/right output signal with added ambience signal. This is useful for those who create CDs of the service or for any application where a digital version of the main output is needed (such as live Internet feeds). Use the digital control screen to set up this output.

NOTE: Many benefits of the S-32® require careful initial setup. The plethora of knobs and switches on the S-32 have a strange magnetic attraction to curious fingers that can undo hours of work in a few minutes. When you plan and install this product, make sure that it is installed where the operator can hear the sound system but where it is protected from unauthorized experts. Password security is provided to protect the setup of output processing. **And remember, your job is not complete until these settings have been marked and recorded on paper.** In addition to the copies you keep on hand at the mix console, file another copy of your settings in a secure location.

## Step 2 - Adjustments

Now that you have read the section on planning your installation and you have connected the mixer to your system, it is time to start adjusting the mixer for proper operation. Provided you have a basic understanding of gain structure, equalization and dynamics control, initial setup will not take long (and will generally be an ongoing process). Adjustments include system equalization, speaker system delay adjustment and setting the Feedback Ferret® to address feedback problems with fixed microphones.

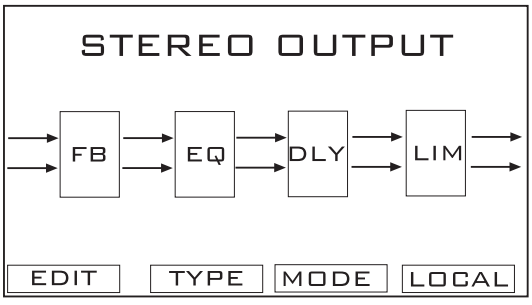
### Setup Goal

Your overall goal is to get high quality sound from the mixer while letting it do as much of the work as possible. In most applications, the complexity of mix varies greatly. There is no replacing an experienced sound technician behind the mix console when it comes to mixing music, but not all applications require that level of experience. With a little training, almost anyone should be able to successfully operate the S-32® once it is set up. For many applications, good results should be obtained by unmuting mics when needed and making an occasional adjustment of levels.

Complete the Setup Procedure By:

- Setting gain on each channel so that the "Normal" fader position is "0." These faders may need to be adjusted during use, but "0" is a good starting point.
- Adjusting the Automix™ channels so that the faders can generally be pushed to "10" if needed without feedback. These are often channels where it can be difficult to get enough gain.
- Programming the mute groups or scenes to simplify transitions between speech and music and to configure the console for different requirements.
- Adjusting the compressors on channels 25-32 so they compress during loud speech but not at normal speaking levels. This reduces the amount of manual adjustment needed.
- Setting the master faders at "0"so the system cannot be easily pushed into feedback.
- Adjusting the compressors on the subgroups (if desired) to help control dynamic range. This can be most useful on solo singers or small groups where mics are handheld, providing a better mix that is easier to obtain.
- Adjusting the noise reduction (off-levels) on the subgroups so when these microphones are not in use, the gain is automatically reduced to help keep noise from these mics out of the sound system. This results in better-reinforced sound and better recordings. Mute groups or scenes may take care of this during normal operation, but may benefit by simplifying the mixing of simple services.
- Setting the Feedback Ferret so common feedback frequencies are filtered for the mics normally used.
- Having the Feedback Ferret automatically detect and eliminate feedback if it occurs.
- Marking important settings so that the controls can be returned to known good positions.
- By using AUTO-LEVEL circuitry to reduce dynamic range and by adding ambient room sound to the sound system signal, recordings, broadcast audio and sound to other areas.
- Configuring and adjusting the digital processing of the Local, Remote and Main outputs to incorporate EQ, delay and dynamic functions.
- Utilizing the USB port to receive digital audio or to send the mixer's output to a computer for playback or recording.

*Stereo or mono operation:*
Set the main outputs for Stereo or Mono operation. This is done in the Output Processing screens.



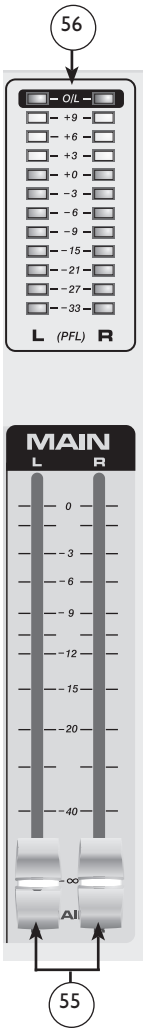
## Step 2 - Adjustments

*Gain Structure:*
Proper gain structure is critical to achieving good performance in any sound system. When you have a console with as many as four gain-adjustment points from microphone input to the output–and you have level controls at the power amplifiers and crossovers, as well–it is important that each be set properly to ensure that the signal that comes from the loudspeaker is as free of noise and distortion as possible. In general terms, all of the gain should be in the mic preamplifier, bringing the signal to the nominal operating level, and that level should be maintained from that point on. Fortunately, setting the gain structure on the S-32® console is very easy. The output meter on the S-32 is the key. The "0" point on the meter is our target signal level for a nominally loud signal going through the system. This still leaves about 20 dB of headroom before clipping occurs, but it is sufficiently high above the noise floor of the console so that background hiss should be inaudible in the room. Another key aid to proper adjustment is the "0" markers on the sliders. When the sliders are set to "0," the signal level remains the same (unity).

**Reality** ✔

Let's face it. In a perfect world, you could set your controls and faders once and never change them again. But we don't live in a perfect world. For example, the strength of a singer's voice varies not only from singer to singer, but from song to song. Confidence and familiarity allow some performers to stand out, leaving others behind. The S-32 offers many options to correct your audio signal, effectively balancing a multitude of singing voices, speakers and instruments.

Start out by getting the sound system gain structure correct by setting the power amplifier, crossover and output trim gains so that the system is nominally loud when the S-32 output meters read "0."




**Set the mixer to amplifier system gain.**

This adjustment is an important part of optimizing the performance of the S-32.
It helps minimize noise and distortion and ensures that the automatic mixer, compressors and noise reduction expanders will have the proper signal levels to operate.

There are several different ways the output trim control can be used, but each approach starts with the same conditions.

Set the master slider(s) to "0" (full up).

Play a music CD through one of the line channels with the gain adjusted so that the S-32 output meter reads "0."

*Conventional method:*
Set the Trim Control (79) to 0 dB and adjust the amplifiers or crossover network for a nominally loud level* in the room.

*Method #2*
Start with the output Trim Controls (79) on the rear of the S-32 turned down and increase until a nominally loud level* is reached.

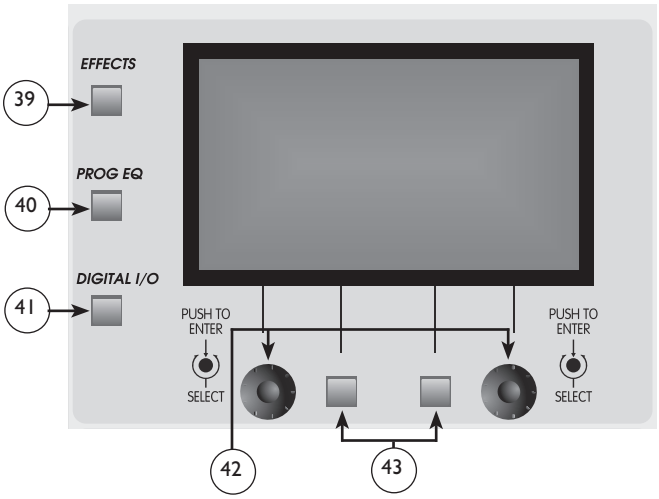
*Method #3*
This method is a combination of 1 and 2 and has the advantage of allowing the system to be easily adjusted for times when the louder levels are occasionally needed. Set the Trim Control (79) to the 12:00 position and adjust amplifiers or crossover network for a nominally loud level* in the room. In operation, if more level is needed, turn up the trim control.

*The maximum sound level for the system is actually higher because of the headroom of the mixer.

Note: Setting the gain structure of the S-32® will be addressed later in this section on page 34.

**Setting output equalization**

The digital processor in the S-32 contains extensive output processing capabilities including graphic and parametric equalizers. Be sure to set the output equalization on the Main, Local and Remote outputs. If delay is needed on those outputs, now is a good time to set it. All of the screens related to the outputs are accessed using the "output processing" button. These screens can be password protected to prevent unauthorized adjustment. The lock functions are found in the Digital I/O screen under Utilities/Security. Once the unit has been locked, be sure to save the password in a safe location.




**Setting output delay**

The S-32 has the Audio Delay capability on the Right, Local and Remote outputs and a built-in system for setting those delays. Again, the delay adjustment screens are accessed using the "output processing" button on the S-32 digital processor.

**Audio Delay application**

Compared to light and electricity, sound travels along at a leisurely 1130 feet/second. This relatively slow speed affects many aspects of sound system design and operation. Reverberation as we know it would not exist if sound traveled at the speed of light. Many of the other challenges would be different, as well.

**Reality** ✔

In many churches, auditoriums and venues where an orator is addressing large groups of people either unaided or though the use of a central sound system, audience members may have difficulty hearing or understanding what is being said when seated in certain areas of the room. They may be seated in an area that the main speaker system does not cover well, such as under a balcony; they may be in a location that is physically connected but acoustically isolated, such as an overflow seating area; or they may be simply too far away. Hearing can be difficult in these areas because the sound level from the orator or main speaker system is too low compared to ambient noise or room reverberation. In most cases, auxiliary speakers are added locally to obtain sufficient sound level in these areas. However, without proper consideration for the slow speed of sound, intelligibility can still be a problem. If the auxiliary speaker system is sufficiently far from the main speaker system, the auxiliary system will be heard first followed by the main system, which is heard as an echo. Depending on the delay time and volume, the echo can interfere with listening. Additionally, if the auxiliary speaker is not between the listener and the original sound source, the sound will appear to come from the wrong direction (the auxiliary loudspeaker) and can distract the listener.

In the 1940s, Helmut Haas researched the disrupting effect delayed sound can have on the listener and how delay affects our localization of sound. Using principles based on his research and with the use of modern digital delay lines, the echo and localization problems described above can be overcome with the integration of auxiliary speakers made virtually seamless.

Haas' experiments involved listening tests where one talker's voice was reproduced by two speaker systems, one using a magnetic audio tape delay. He observed that if the sound arrived from the delayed speaker between 1 and 30 ms after the original, then the delayed speaker is not heard at all, even if the volume from each speaker is the same. The sound seemed to come only from the non-delayed speaker. However, the perceived volume was louder resulting from the combined power of the speakers. He further observed that if one speaker was delayed 5 to 30 ms, the delayed speaker needed to be 10 dB greater in volume than the reference speaker for the listener to perceive the volume from the two speakers as equal. As the delay time was further increased, the volume difference was decreased for the two speakers to appear to be at the same level. Although the sound quality changed somewhat with the delay, it was not considered disturbing and actually made listening less tiring and more natural. As the delay reached approximately 50 ms, it was possible to discriminate the delayed speaker as a separate echo.

Haas further observed, depending on the rate of speech, that if the amplitude of the echo was equal in volume to 10 dB greater in amplitude than the original sound, delays of 40 to 50 ms would disturb only a small percentage of listeners. If the echo signal was reduced in amplitude to 10 dB below the original, no amount of delay disturbed the listeners.

So based on his research, auxiliary loudspeakers benefit from sufficient delay of their signal so that their sound arrives at the listener 5 to 30 ms after the arrival of the original sound. Even as the amplitude of this local speaker is increased, the additional delay will help move the sound image toward the original source. As long as the difference in arrival time within the coverage area of the two speaker systems is 45ms or less, listeners will not perceive an echo and should not be disturbed.

**Autoset delay function**

The audio delays can be set by manually setting the delay time using traditional controls and testing, or the user can use the Auto Delay setup function. The Auto Delay setup function provides the user with the tools to set the delay time of an auxiliary speaker system. When the Auto Delay function is selected, a short tone burst is alternately sent out of the Main output and output to be set. A microphone set near the auxiliary speaker system measures the transit time. This microphone can be connected to any S-32® standard mic input. All other microphones must be muted. The transit time from the main speaker system to mic and the auxiliary speaker to mic will be measured and the user instructed on proper adjustment. Proper alignment is achieved when the sound from the auxiliary speaker system arrives at the mic about 15 ms after the main system signal. By selecting Autoset, the delay is set automatically.

For a more complete explanation on the application of delay, see the Glossary at the rear of the manual.

Autoset test function On/Off (Turning the test function on will invoke a warning and instruction screen first). Selecting the Autoset "test" function disables both the output to be set (Right, Local or Remote) and the main output. The user chooses the main loudspeaker system that is used for reference. The Left main output is the default but the Right output can also be select ed. When in Autoset mode, you will see level controls for the test tone to the main output and the output under test. The screen will display any error messages associated with the setup. (Main Level too low, Auxiliary speaker system too low, Mic Level too low, etc). When the test function is working correctly, the transit time from main speaker to microphone will be dis played along with a recommended delay time. A button can be pressed to set the delay automatically.

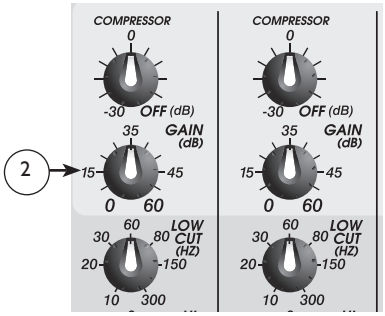
Once the delay and output equalization are set, begin setting up the microphone inputs. Once the fixed microphones such as choir and pulpit mics are set, then the Feedback Ferret® can be set. Begin microphone setup by turning off the compressor and off-level threshold

controls to the OFF position. Position the compressor and the off-level threshold to the OFF position to begin microphone setup. For each microphone, set the bus assignment switch to the correct position and normalize the subgroup faders to “o”.

**Setting S-32® gain structure**
**Setting the console's gain structure is easy once the system settings are made.**

**Input channel gain adjustment**

Start by assigning the channel to the appropriate subgroup.




Set the Master Fader, Subgroup fader and Channel fader for that input at “o” and turn down the gain control (2). Adjust the input gain control for the appropriate level in the room. As you mix, if you find that the fader is consistently well above or well below “o,” readjust the gain–but keep in mind the gain control will also adjust the monitor level, so don’t obsess about gain structure and everything will work out fine.

**Adjustment of the Automix™ inputs**

Setting the Automix channels is basically the same as setting the manual channels as long as you keep a couple of things in mind. **First**, because the gain of the Automix channels is influenced by signals on other Automix channels, set them one at a time with the other Automix channels muted. **Second**, because these channels each have a compressor, it is best to set the gain with the compressor inactive. For spoken-word microphones, you may wish to adjust the gain with the fader fully up so that it is just below ringing. This gives you a good reference for how far you can push the fader without feedback. Remember, channel equalization affects the gain and feedback.

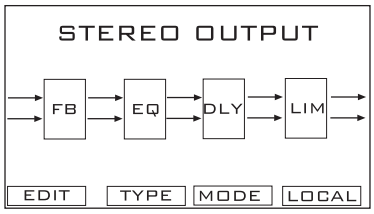
**Setting channel equalization**

Channel equalization is best set in the context of how that input will be used. For example, if the input is a spoken word mic on a podium, then the equalization of that channel can be done with the main orator using the microphone. However, if you are equalizing the mic on the piano (which is one of several accompanying musicians), it is often better to adjust the EQ in the context of those other instruments. You may find that the full mid-bass sound that you like played solo actually muddies the sound of the ensemble. Whenever possible, cut instead of boosting EQ controls. That being said, it is often easiest to find the frequencies you wish to cut by first setting the EQ to boost. Sweep the frequency control until the offending frequencies are emphasized and then cut as necessary. It is easier to see a mountain in the distance than a hole in the ground.

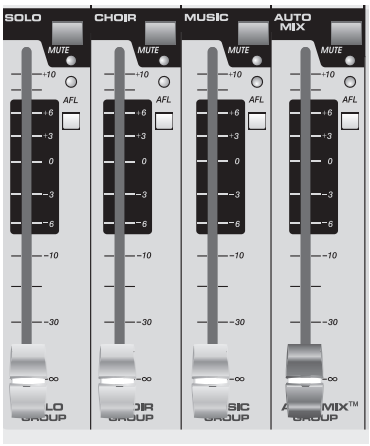
(Don’t try this with the Mid-Morph™ control, because it cuts and boosts at different frequencies, and will not work.)

**Now it is time to set up the Feedback Ferret®**

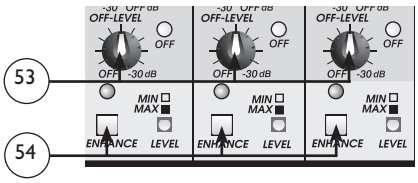
The Feedback Ferret has very narrow filters that are automatically set only as deeply as neces sary to prevent feedback. The filters are set in two ways. To prevent problems before they happen, the Feedback Ferret setup procedure is used to find basic feedback problems with normally used microphones and then configure filters that are stored in permanent memory. Every time the mixer is turned on, these filters will be recalled. In the normal Feedback Ferret operation mode, additional filters will be set if needed when feedback occurs, but these are not permanent. These dynamic filters are slowly eliminated over time or when the unit is turned off.




1. The Feedback Ferret setup procedure sets the static filters that will be active until they are cleared and the setup procedure repeated.
2. In preparation for setting the static filters, unmute the fixed microphones that are prone to feedback and set them at their normal operating levels.
3. Starting with the Output processing screen, navigate to the Feedback Ferret setup screen for the main outputs.
4. Once you enter Start Setup in the Feedback Ferret screen, slowly increase the group faders for the active mics until feedback begins. Pause until it goes away, then increase again. The goal here is to filter the main offending frequencies without getting carried away. Knowing how far to go will come with experience. If you start hearing many different frequencies of feedback at the same time, it is probably time to stop.
5. Stop the setup and return to normal operating mode.
6. Use the mics to hear both how they sound and to confirm that you have sufficient gain before feedback. If everything sounds good, Feedback Ferret setup is complete. If there are one or two mics still causing trouble, you may need to reposition the mics or monitor speakers. You may also want to increase their gain compared to the other active mics and then repeat the above procedure. The Feedback Ferret will then give priority to solving feedback problems for these mics. The Feedback Ferret does a good job of reducing feedback, but it does not replace good placement of the mics and speakers.




**Adjusting the Group Off-Level Controls**




**To Set OFF-LEVEL**

The Off-Level (noise reduction) control works to automatically do what a good sound operator would do: turn down or off microphones when they are not in use. If you plan to have an operator do this, then the control can be left off (fully counterclockwise). However, if mics assigned to one of the subgroups will be left on and you want to reduce the pickup of noise or the sound of persons speaking as heard through the monitors, then use the noise reduction “expander.”

This circuit does not turn the microphones off, but it turns them down. How much it turns them down depends on the sound level through the mics and the setting of the Noise Reduction control. The Noise Reduction control is called a threshold control. The circuit starts working when the volume is below the threshold set by this control. When the sound from the mics in this group are above the threshold volume, the signal is unaffected and noise reduction “active”

light is off. If the sound from the mics drops below the threshold, then the circuit starts turning them down and the “active” light comes on. The further the signal from the mics is below the threshold, the further they are turned down. The goal in setting this control is to find a point where the threshold is high enough to turn down unwanted sound, but low enough so that desired sound is unaffected. It may take some experimenting to get this set, but the circuit is quite forgiving. Once you get this set, mark the setting, and leave it.

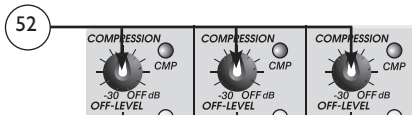
**How To**

Off-Level settings can be setup following this example for choir mics. With the choir mics on and while someone is speaking into one of the Automix™ mics, turn the threshold control clock wise until the NR active light comes on. Turn it slightly further and stop. Make sure that the circuit turns off (active LED off) when the choir mics are used.

**Adjusting the Group Compression Controls**

Group Compressors work on the opposite end of the volume spectrum from the noise reduction (expansion) circuitry. The compressor circuit works to control how loud the group signal gets. Like the Off-Level control, the compressor control on the S-32® is also a threshold control. This time, the compressor starts to work when the volume goes above the threshold control set by this control. If the volume goes above the threshold, this circuit reduces how much louder the signal gets. The signal will still get a little louder, but not as much. This can be a big help with soloists and small groups of singers. If the volume is set for a good balance with the music at low to mid volume, often it will get too loud as the vocal volume builds. Setting the threshold so the light comes on at mid volume levels does wonders to help the mix.

Because the compressor works on the opposite end of the volume spectrum from the Noise Reducion circuitry, adjustment of the threshold control is also opposite. Turning the control fully clockwise sets the threshold very high and essentially turns it off. Rotating the control counterclockwise lowers the threshold and activates the circuit as indicated by the “active” LED.

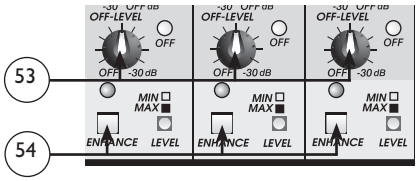



When the mics of a group are in use, turn the compressor threshold control counterclockwise until the active LED blinks during medium-to-loud passages.

WARNING: If the threshold is set too low (LED on most of the time), the fader will need to be increased to get sufficient volume from the mic. Although this may sound okay while they are singing loudly, when the volume drops the gain goes back up and feedback can result. Be aware that unexpected feedback may result if the threshold is set too low.

**Adjusting the Vocal Enhancer**

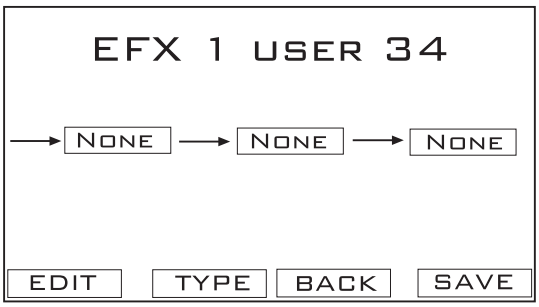
The Vocal Enhancer circuit adds clarity and presence to both spoken word and singing by adding upper frequency overtones that enhance the understanding of words. Many factors determine how this will sound in your system. The vocal enhancer is best set by engaging it and listening to how it sounds. A vocal enhancer is available on each of the four S-32 subgroups.



**To Set THE VOCAL ENHANCER**

Engage the Vocal Enhancer by pressing the switch on the desired subgroup so that the active LED is lit. Use the behind-the-panel MIN/MAX switch to change the amount of enhancement. You can use a small object like a pencil to change the switch.

**Setting the internal effects**

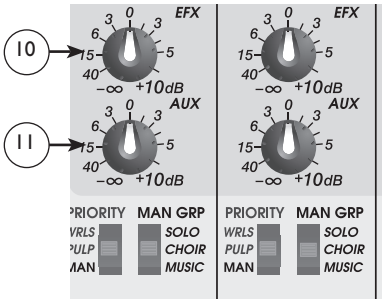



The S-32® has a sophisticated internal effects unit with a variety of effects and effect presets that can be used to augment music for worship. A little bit of reverb mixed with voice can both smooth the sound and help keep an appropriate aural perspective. (If a person sings with a microphone close to his/her mouth, that intimate sound may not blend well with the rest of the music. Adding reverb can help change the perspective.) But, you must be careful. **Adding too much reverb to music can make the words hard to understand.** (Remember, the message is in the words.) A good rule of thumb is that if you notice the reverb, it's too much. If your room is naturally reverberant to begin with, adding reverb may not be necessary.

Reverb is rarely used on spoken word, except as a special effect. Again, reverb tends to make speech harder to understand. As you look at the effects screen you will find that it is fairly simple to select any of the effect groups that were created for you, or you can easily create and store your own.

**Other effects in the S-32 may fit your needs and you can easily create, edit and store your own.**

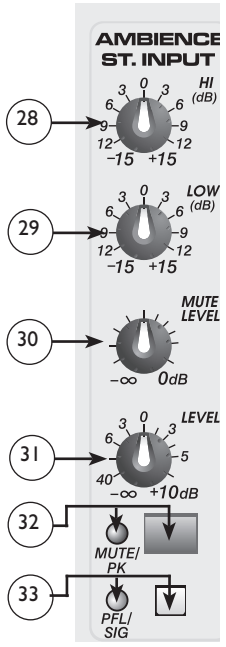
**Setting the levels**




On the channels to which you want to add reverb or another effect, turn the EFX send knob to the "o" position. Set the EFX master control to "o" as well as a starting point. This will send a signal from that channel to the EFX output that feeds the internal effects processor. The AFL button on the EFX output can be used to listen to the signal going to the processor and meter the output level. In the master section of the S-32, the EFX Return level controls the signal returning from the effects processor. The effects output can be routed to a sub group (this is preferred if all the mics sending to the effects processor are in the same group as adjustments to sub group fader). This will not change the balance of effects to direct signals. To route to a group, set the assign switch to "GRP" to activate the group routing switch. If the microphone sends to the effects unit are assigned to multiple sub groups, then the EFX return might better be routed to L/R. Remember, the "o" position on the EFX send is just a starting recommendation. Adjust each channel's send level as needed.

**Remember that a little bit of reverb goes a long way.**

**Ambience mics**




If you choose to use an ambience mic to add congregational singing (or liturgical reading) to the Record, Broadcast or Auxiliary outputs, set them now. If you only use one ambience microphone, it can be wired in parallel to both ambience mic inputs. The only practical way to adjust these microphones is with realistic conditions. Begin by setting the Preamp Gain with the PFL button engaged. This will allow you to listen in stereo to the mics and to observe their output level on the S-32 meter.

The Ambience output level control adjusts the level going to the Stereo, Record and Broadcast outputs, the Local and Remote outputs and to the USB Record output. The local, remote, and USB output also have controls that allow the Ambience level to be adjusted (or turned off), but the front-panel Level control is always the master and must be adjusted first. Listening to the Record or Broadcast outputs adjust the balance of ambience to main system signals. It is best to adjust this for music. The level can then be adjusted for spoken-word ambience by muting the Ambience input and adjusting the mute level for the desired balance.

Once these levels are set, the level can be adjusted on the output processing and Digital I/O screens for the Local, Remote and USB Record outputs. Once the balance is set, the Ambience level control will serve as a master control to make adjustments if needed. The ambience can be programmed along with choir or music mics to automatically change the Ambience level for spoken word.

Now that you completed the initial setup, here are some general suggestions and guidelines to help you use the S-32®.

- Make sure that you understand the section on console gain structure and set the channel gain controls so the Normal fader position is "0."
- Make sure all of the Inputs and Outputs are properly labeled. There are several portable label-making systems on the market that give professional results at low cost. Just because you know what is on Input 17 and that Monitor 1 feeds the vocal monitors, doesn't mean that everyone does. Take the time to label!
- Set the Automix™ channel gain controls so feedback is unlikely if the faders are pushed to +10.
- Set the priority switch on the Automix channels with mobile microphones to reduce comb filtering. Setting the switch to the Wireless position gives that channel gain priority over lower-priority mics with the same input level.
- Adjust the compressors on the Automix channels so that they compress during loud speech but not at normal speaking levels. If you use the Automix channels in manual mode for music, it is okay to use a little more compression, but remember that if the threshold is set too low and the gain needs to be turned up, you can run into feedback problems.
- Set the master faders at "0" (fully up) so that the system cannot be easily pushed into feedback. If the overall level is low, it is better to bring up just the microphone or microphones that need the additional gain than to raise the master. Additionally, if the master has been raised and you then unmute a mic it could go into feedback.
- The subgroup faders should generally be set to "0" although they are used for mixing and will deviate from those settings.
- Adjust the compressors on the subgroups (if desired) to help control dynamic range.
- Adjust the Noise Reduction on the subgroups (if desired) so that when these microphones are not in use, the gain is automatically reduced to help keep noise from these mics out of the sound system.
- Set the Monitor Sends as required so that the worship participants can hear. But remember, putting too many things in the monitors can actually make it harder to hear.
- Program the mute groups.
- Don't boost the equalization if you can make it sound better by cutting. (Turn down the bass or Mid-Morph™ first; boost only when cutting does not work.)
- Before the service or performance begins, know how much adjustment range you have on the choir and solo mics without getting feedback.
  Beware: if you turn up a mic and it feeds back then stops, the Feedback Ferret® has just added a new temporary filter. Don't mute that mic and expect to be able to achieve that same setting later.
  The Feedback Ferret will release temporary filters after a while if they are not needed, so the feedback could return with future fader adjustments.
- One of the responsibilities of the person operating the mixer during the service is muting and un-muting wireless mics for spoken word. This may be obvious, but make sure the channel is on before the person starts speaking, and be sure to turn it off when they are finished. If more than one speaking mic is in use, turn the mics on and let the Automix do the work.
- The most important thing to remember is that a sound system that is well set up and operated will be transparent to the listeners. If your audience never thinks about the sound system, then you have achieved your goal. Operation and adjustments made on the S-32 should be made in a slow, deliberate fashion so they do not attract attention. Operational mistakes will be made; however, they can be hidden. For example, fading up a mic late may be less noticeable than mid word.

**AFL-After Fader Listen** – This control is similar to the PFL, allowing the user to listen to the selected signal and check its level on the meter. However, the AFL signal is taken after the associated level control, so that it accurately reflects the signal level going to the output.

**Ambience** – The sound present in a room, much of which did not come from the sound system.

**Auto-Level** – Automatic Level Control. This circuit reduces dynamic range so that the volume does not get too loud or too soft. It increases the gain at low levels to reduce noise and compresses it at higher levels to control volume.

**Bus** – This collects signals from many places, sums them and delivers them to the master output section of the mix console.

**Comb Filter**– This refers to the frequency response that results from combining two signals from one source where one is delayed. Although this may sound complicated, it occurs when sound is picked up simultaneously by two mics that are slightly different distances from the sound source. As the source (person) moves, you hear a sort of "swishing" phasing sound. The priority feature on the Automix™ helps prevent this problem.

**Compressor** – An audio compressor reduces the dynamic range of a signal by reducing (compressing) the gain when the signal gets loud. The threshold control sets the point above which compression takes place.

**Crossover** - These filters split the audio signal into two or more signals (bands). Each signal (band) will only carry some of the frequencies originally present.

**Cut** - To mute a line or to reduce the gain of a specific band of frequencies, like with an equalizer.

**Delay Line** – The audio signal is held in memory and is sent to the output a pre-set time later. Because sound travels slowly in air, a loudspeaker system placed under a balcony to aid listeners would be heard before the sound from the front of the room arrives. By delaying the signal to the auxiliary loudspeaker, the disturbing echo is eliminated and the sound image can actually be moved toward the front loudspeakers. (See the detailed explanation in section on setting delay.)

**Directional Mic** – A mic that picks up sound better from one direction than other. Cardioid mics are an example. They pick up well from the front, slightly less from the sides and very little from the rear. This can be used to advantage by reducing the pickup of sound from monitor or sound system speakers. (It only works if the back of the mic is pointed at the speaker. When a singer bends down and points the front of the mic at the monitor speaker, only a Feedback Ferret® or the channel mute can prevent feedback.)

**Dynamic Range** – Dynamic Range describes the variation from soft to loud speech or music. Too wide a dynamic range can result in sound that is difficult to hear when it is soft, or perceived as too loud when loud. Sound with too narrow a dynamic range can be hard to listen to for long periods of time (the “elevator music” sound).

**Expander** – An expander performs the opposite function of a compressor. It expands dynamic range. It is most often used to turn down the sound from microphones when they are not in use.

**EQ (Equalization)** – Equalization is really a fancy word for tone controls that allow the user to equalize or emphasize/de-emphasize the sound at certain frequencies.

**Fader** – The slide control on the mixer used to adjust the mix of microphone signals.

**Feedback** – (Acoustic Feedback) Loud howling sound heard from the speaker system. It is caused by sound from the speaker system re-entering the microphone louder than the original sound. The sound keeps getting louder and you hear what we know as acoustic feedback.

**Foldback** – Sending sound back to the person speaking or performing.

**Gain** – Amplification of an audio signal. A negative gain (in dB) is an attenuation, or reduction of level of the signal.

**Gain Before Feedback** – How much you can increase the gain of a mic (turn it up) before feedback occurs. You have sufficient gain before feedback if you can turn up the gain on a mic and get acceptable volume without getting feedback or ringing.

**Gain Structure** – In a sound system, there are numerous places within the console and in the system where gain can be adjusted. For an audio signal to pass through a sound system undistorted, the amplitude of the signal must be high above the noise floor but below clipping. For quiet operation with low distortion, the gain needs to be applied as early as possible then kept essentially at

that level (0 dB on the output meter (+4 dBu) for nominal operation) until it reaches the power amplifier. When the system is installed, the system should be set so that "0" on the output meter corresponds to a nominally loud level in the room. When faders are set at "0," which is the unity gain position, the amplitude of the signal is not changed. Set console gain structure by setting the input gain control (with the faders at "0") for proper level from the loudspeaker system. Of course, the faders on the console will eventually be adjusted during mixing, but they should remain in the area of "0" (within +/-10 dB) if possible.

**Monitor** – A speaker system that allows performers or participants to hear specific microphones or instruments.

**Noise Reduction** – In the S-32® console, background noise is reduced through use of automatic circuitry called a downward expander that reduces the gain (and noise) when the signal drops below the threshold level.

**PFL- Pre Fader Listen** – When activated on an input, the user can listen to that input through the headphone output and monitor the level of the signal on the output meter. Because the signal is derived pre fader and pre mute, the signal can be auditioned and evaluated without it necessarily going to any of the mix console outputs.

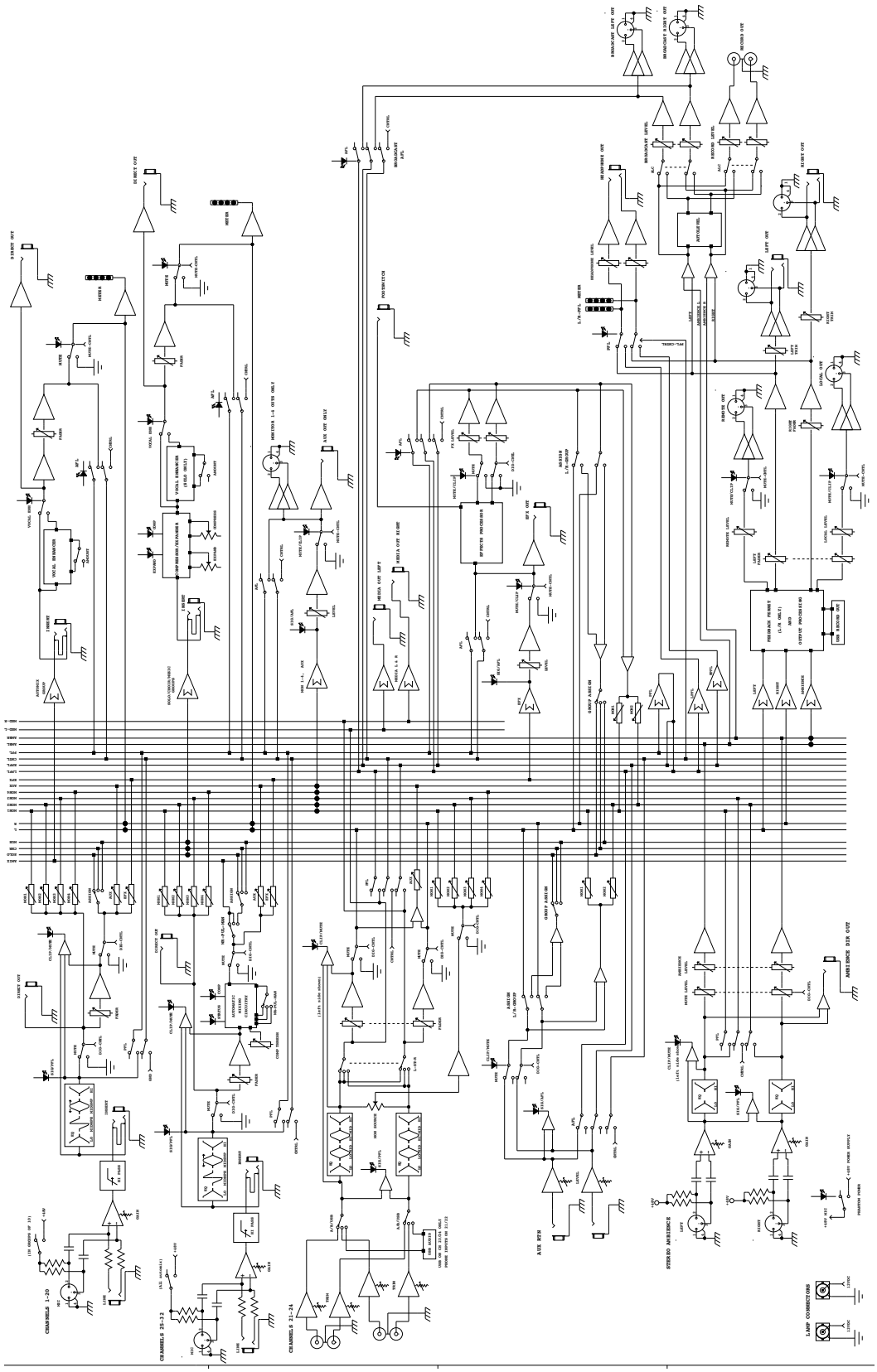
**Reverb (Reverberation)** – A series of closely spaced reflections or echoes that cannot be individually distinguished. The effect is that we continue to hear the sound in the room after the original sound source has stopped.

**Ringing** – The resonance ("ringing") sounds heard (often at the end of words) when the sound system is close to acoustic feedback.

**Threshold** – On a compressor or expander, this is the signal level where the circuit starts working.

**Unity Gain** – The gain of the circuit is 1 or 0 dB. In other words, the circuit does not change the signal level. Although mixing is about adjusting channel gains to get a desired balance between sources, the unity gain point ("0") should be in the center of the adjustment range for channel faders, subgroup faders and master faders.

# Block Diagram S-32® Sanctuary Series™



# S-32® Sanctuary Series™ Specifications

## Inputs

| Function | Input Z (Ohms min) | Input Gain Setting | Input Levels Min** | Nominal* | Max | Bal/ Unbal | Connector |
|---|---|---|---|---|---|---|---|
| XLR Input (150 Ohms) | 2.2k | Max Gain (60 dB) | -76 dBu | -56 dBu | -36 dBu | Bal | XLR Pin 1 Gnd<br>Pin 2 (+)<br>Pin 3 (-) |
| | | Min Gain (10 dB) | -16 dBu | +4 dBu | +20 dBu | | |
| Line (10 k Ohms) | 10k | Max Gain (40 dB) | -56 dBu | -36 dBu | -16 dBu | Bal | 1/4" TRS;<br>Tip (+)<br>Ring (-) |
| | | Min Gain (-20 dB) | +4 dBu | +24 dBu | +36 dBu | | Sleeve Ground |

0 dBu=0.775 V (RMS)

** Min Input Level (sensitivity) is the smallest signal that will produce nominal output (+4 dBu,1.23 VRMS) with channel and master faders set for maximum gain.

* Nominal settings are defined as all controls set at 0 dB (or 50% rotation for rotary pots) except the gain adjustment pot which is as specified.

## Outputs

| Function | Min Load Z (Ohms) | Output Levels Nominal | Max | Bal/ Unbal | Connector |
|---|---|---|---|---|---|
| Main Left/Right | 600 | +4 dBu | +22 dBu | Z Bal | 1/4" TRS: Tip (+), Ring (-)<br>Sleeve Ground |
| | | | +22 dBu | Bal | XLR Pin 1 Ground<br>Pin 2 (+), Pin 3 (-) |
| Monitor (1-4)<br>Broadcast,<br>Local<br>Remote | 600 | +4 dBu | +22 dBu | Bal | XLR Pin 1 Ground<br>Pin 2 (+), Pin 3 (-) |
| Aux, Efx | 600 | +4 dBu | +22 dBu | Z Bal | 1/4" TRS: Tip (+), Ring (-)<br>Sleeve Ground |
| Headphone | 8 | N/A | 150 mW@32Ω | Unbal | 1/4" TRS; Tip Left, Ring Right<br>Sleeve Ground |

0 dBu=0.775 V (RMS)

## Gain

| | |
|---|---|
| Mic Input Gain Adjustment Range: | 0 dB to 60 dB |
| Mic Input to Any Output | 80 dB (max gain) |
| Stereo Channel in to any Output | 60 dB (max gain) |
| | |
| | |
| | |

## S-32® Sanctuary Specifications

### Frequency Response

| | |
|---|---|
| Mic Input to Left/Right Output | 20 Hz to 20 kHz +0 dB/-1 dB |

### Total Harmonic Distortion

| | |
|---|---|
| <0.05% 20Hz to 20kHz Mic to Left/Right Output | (22 Hz to 22 kHz BW) |

### Hum and Noise

| Output | Residual Noise | S/N Ratio (Ref: +4dBu) | Test Conditions |
|---|---|---|---|
| Left/Right Monitor (1-4), Aux, Efx, Local, Remote, Broadcast | -97 dBu<br>-81 dBu<br>-80 dBu | 101 dB<br>85 dB<br>84 dB | All Faders Down<br>Master Fader Nominal, All Channels Muted<br>All Controls Nominal, Mic Gain Min |
| Channel, Group Direct Outs | -90 dBu | 94 dB | Min Gain |

(Hum and noise measurements: 22Hz to 22 kHz BW)

### Equivalent Input Noise (EIN)

-129 dBu (input terminated with 150 ohms), Maximum Gain

### Common Mode Rejection Ratio (Mic Input)

60 dB minimum (20 Hz to 20 kHz)

70 dB typical @ 1 kHz

### Meter Arrays

12 and 6 segment, peak reading.
O/L indicates both output and bus overload
(0 db = +4 dBu)

### Signal/Overload Indicators

Peak lights 2 dB below clipping.
Signal lights as -20 dBu

### Dimensions

43.0" wide x 23.5" deep x 9.25" high
(109.2 cm x 59.7 cm x 23.5 cm)

**Installation Note:**
**This unit must have the following clearances from any combustible surface: top: 8", sides: 12", back: 12"**

### Weight

42.5 lbs. (19.3 kg)

### Power Requirements

100-240 VRMS
125 watts

# PEAVEY ELECTRONICS CORPORATION LIMITED WARRANTY

*Effective Date: July 1, 1998*

What This Warranty Covers
Your Peavey Warranty covers defects in material and workmanship in Peavey products purchased and serviced in the U.S.A. and Canada.

What This Warranty Does Not Cover
The Warranty does not cover: (1) damage caused by accident, misuse, abuse, improper installation or operation, rental, product modification or neglect; (2) damage occurring during shipment; (3) damage caused by repair or service performed by persons not authorized by Peavey; (4) products on which the serial number has been altered, defaced or removed; (5) products not purchased from an Authorized Peavey Dealer.

Who This Warranty Protects
This Warranty protects only the original retail purchaser of the product.

How Long This Warranty Lasts
The Warranty begins on the date of purchase by the original retail purchaser. The duration of the Warranty is as follows:

| Product Category | Duration |
|---|---|
| ***Guitars/Basses, Amplifiers, Pre-Amplifiers, Mixers, Electronic Crossovers and Equalizers*** | ***2 years (+ 3 years)**** |
| ***Drums*** | ***2 years (+ 1 year)**** |
| ***Enclosures*** | ***3 years (+ 2 years)**** |
| ***Digital Effect Devices and Keyboard and MIDI Controllers*** | ***1 year (+ 1 year)**** |
| ***Microphones*** | ***2 years*** |
| ***Speaker Components (incl. speakers, baskets, drivers, diaphragm replacement kits and passive crossovers) and all Accessories*** | ***1 year*** |
| ***Tubes and Meters*** | ***90 days*** |

***[*Denotes additional warranty period applicable if optional Warranty Registration Card is completed and returned to Peavey by original retail purchaser within 90 days of purchase.]***

What Peavey Will Do
We will repair or replace (at Peavey's discretion) products covered by warranty at no charge for labor or materials. If the product or component must be shipped to Peavey for warranty service, the consumer must pay initial shipping charges. If the repairs are covered by warranty, Peavey will pay the return shipping charges.

How To Get Warranty Service
(1) Take the defective item and your sales receipt or other proof of date of purchase to your Authorized Peavey Dealer or Authorized Peavey Service Center.
***OR***
(2) Ship the defective item, prepaid, to Peavey Electronics Corporation, International Service Center, 412 Highway 11 & 80 East, Meridian, MS 39301 or Peavey Canada Ltd., 95 Shields Court, Markham, Ontario, Canada L3R 9T5. Include a detailed description of the problem, together with a copy of your sales receipt or other proof of date of purchase as evidence of warranty coverage. Also provide a complete return address.

Limitation of Implied Warranties
ANY IMPLIED WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE LIMITED IN DURATION TO THE LENGTH OF THIS WARRANTY.
***Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you.***

Exclusions of Damages
PEAVEY'S LIABILITY FOR ANY DEFECTIVE PRODUCT IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE PRODUCT, AT PEAVEY'S OPTION. IF WE ELECT TO REPLACE THE PRODUCT, THE REPLACEMENT MAY BE A RECONDITIONED UNIT. PEAVEY SHALL NOT BE LIABLE FOR DAMAGES BASED ON INCONVENIENCE, LOSS OF USE, LOST PROFITS, LOST SAVINGS, DAMAGE TO ANY OTHER EQUIPMENT OR OTHER ITEMS AT THE SITE OF USE, OR ANY OTHER DAMAGES WHETHER INCIDENTAL, CONSEQUENTIAL OR OTHERWISE, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.
***Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.***

***This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.***

If you have any questions about this warranty or service received or if you need assistance in locating an Authorized Service Center, please contact the Peavey International Service Center at (601) 483-5365 / Peavey Canada Ltd. at (905) 475-2578.

*Features and specifications subject to change without notice.*

Logo referenced in Directive 2002/96/EC Annex IV (OJ(L)37/38,13.02.03 and defined in EN 50419: 2005
The bar is the symbol for marking of new waste and is applied only to equipment manufactured after 13 August 2005

Features and specifications subject to change without notice.

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